THE

AMERICAN FARMER.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . . *Virg.*

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WORK FOR THE MONTH.

SEPTEMBER.

We propose pointing out to you the things which demand to be attended to this month, and in doing so, shall endeavor to render our hints of so practical a kind, as that all may avail themselves of them, and carry them out in practice without difficulty. With this brief allusion to our objects, we shall proceed at once to state what should be done

ON THE FARM.

Rye.—If you have been prevented by any cause from seeding your Rye, do so as early as possible; the nearer the beginning of the month the better. And bear this truth in mind, that an exhausted soil, without manure, cannot produce a good crop of rye. Though the crop may be grown on a soil very inferior to one required to bring a good crop of wheat, yet it also must have food, to enable it to produce a remunerating yield of grain. The soil in which it may be grown, must have in it 4 or 5 per cent. of vegetable and animal remains; for without mould, no land can bring forth abundant and perfect grain of any kind. As for growing a crop of 8 or 10 bushels to the acre, that is only to vex the spirit, without increasing the weight of the pocket. Twenty and twenty-five bushels, and more, to the acre may be grown, if care be taken to give the land a moderate allowance of manure.

Besides the nutritive manures, the land should have in it *inorganic* ones also, as lime or some other calcareous matter; potash, which can be supplied by 10 or 20 bushels of ashes to the acre; this quantity of ashes, will also furnish lime, magnesia, oxide of iron, oxide of magnesia, sulphuric acid, phosphoric acid and chlorine; for all these substances are to be found in ashes, and all are essential to the growth and perfect elaboration of most plants.

As to the quantities and kinds of these manures to be applied, we refer you to an article in our July number, headed,—"*Culture of Rye:*"—and we wish you to bear this in mind, that deep ploughing and thorough pulverization of the soil, are indispensable pre-requisites to the growth of this crop.

Wheat.—Be sure to prepare your ground well, be sure to give it manures,—and, be sure to get it in in good time. By referring to our *thoughts on the culture of wheat*, in our July number, you will see every particular connected with the subject, and to that article we would refer you for all necessary information—barely stating here, that lime, ashes, and phosphoric acid, are indispensable to any soil on which wheat may be grown, as also nutritive manures.

Threshing out Grain, &c.—This should be one of the first things attended to, so soon as the press of fall business is over, as the sooner the grain grower has his wheat cleaned and ready for market, the better will be his chance of being advantaged by any sudden rise in the markets. But before he puts his grain away, he should give his granary a thorough cleansing,—and take good care to kill off the *rats*. The method of cleansing the first, and giving a quietus to the last, are both detailed in the article to which we have just before referred.

Orchards.—If you have not manured your orchard for some years, make your arrangements to do so this fall. As good a compost as you could form, would be to mix wood's mould, marsh or river mud, ashes and bone-earth together, in the proportion of 20 loads of the mould and mud, to 20 bushels of ashes and 2 bushels of bones, throw it up into pie, and let it remain for 5 or 6 weeks, then shovel it over and mix the whole together, and apply it at the rate of 8 or 10 loads to the acre, broadcast over the orchard. This done, sow a bushel of plaster to the acre over the compost and harrow the whole in, taking care that your harrower does not bark the trees with his implement.

In the meantime, if you have not done so already, apply the soft soap, sulphur, and salt mixture to the trunks of all your trees. Should the bark of any of them be scabby, before painting their bodies with the mixture, have them scraped.

Application of Lime or Marl.—You may set this down as an agricultural truth: *Lands which are destitute of calcareous matter, are unfit for profitable cultivation.* Therefore, if you have any that you believe to be in such condition, you should at once make up your mind to lime them, or to give them a dressing of marl. Wheat will not grow in a soil that is without this mineral. 50 bushels, or even 25 bushels of lime, or 100 bushels of marl, will produce the happiest results upon such lands, not only changing their physical state, but rendering them more productive with the aid of manure. Lime, marl, and ashes, must always be aided by organic manures, as it is absolutely necessary to keep up the supply of *mould* in the soil; and of this you may be assured,

that, without such supply be in the soil, it cannot perfect the seeds of any crop sown upon it. So satisfied are we of the truth of this declaration, that we look upon the accumulation of manure, not only the first duty of every agriculturist, but as the only safeguard he can throw around his interests,—for calcareous matter, however valuable it may be,—and no man estimates its value more highly than we do—cannot act with efficiency and power, unless *mould* be present in the soil to be acted upon. Marl, and Lime, of themselves, are food of plants, but their greatest efficacy consists, in predisposing—nay preparing—vegetable and animal matters to become food.

Meadows—Pastures.—If your meadows and pastures are beginning to diminish in their products, prepare at once, at the following rate for each acre, the following compost—mix together 2 bushels of lime, 1 bushel of salt, 2 bushels of ashes, and 1 bushel of bones, let them lie for six weeks, then sow the mixture on the meadow or pasture, and harrow it in, sow thereon grass seeds, and roll. If a load of well rotted manure be added, it will increase the value of the application, so, also, would a bushel of plaster, to the acre.

Collection of materials for manure.—Rough materials, of all kinds, should be collected and formed into compost heaps. In such collections, recollect that any thing that once had life, is competent to reproduce it. Of such materials there are enough on most farms, if collected together, to supply, annually, the exhaustion of the mould of the soil, and keep up that essential element of all fertile soils. Time and labor cannot be more judiciously applied.

Salt mixture for Stock.—Prepare a mixture composed of equal parts of salt, well sifted ashes, and lime, and give to each head of stock an ounce twice a week. Oyster shell lime is best, as it contains the phosphate of lime.

Sheep.—See that your sheep are provided with tar and salt, to which they can resort at will.

Setting out an Orchard.—If you design setting out an orchard this fall, and your allotted ground has not been in row culture, you should manure each acre with 20 double-horse-cart-loads of a compost formed of wood's-mould and marsh mud 6 parts, 1 part ashes, and 4 bushels of bone-earth. This should remain in heap for some weeks before being applied.

In buying your trees, go to a nurseryman of established character for integrity and truth. Make no purchases of tree pedlars; for if you do, the chances are 99 out of a hundred, that you will be cheated. TREE HAWKERS OR PEDLARS ARE NOT TO BE RELIED UPON. We deem it to be our duty to put you on your guard.

Cellars.—Have your cellars cleaned out, the walls white-washed, and the floors strewed with lime or plaster, and by so doing you may contribute towards sustaining your family in health. Don't forget to put the dirt from your cellar on your dung heap.

Out-houses.—If not recently done, white-wash the interior of your stables and cow-sheds—strew plaster over the floors, as also over your cow and pig-yards.

Fences.—Examine these, and have all necessary repairs made. Frequent examinations at this season, when pastures are almost burnt up, are judicious, as the stock are very apt to be troublesome, in search of food.

Ditching and Draining.—All wet lands should be now relieved of their surplus water, by judiciously constructed ditches and drains. Wet lands are cold; the food given them is literally wasted, the genial influence of the sun's rays are almost excluded from the roots of the plants; such lands produce less, and poorer crops, and cost more to work them, are later by two or three weeks in maturing their crops, while they are later in the spring before they can be worked, and serve to generate autumnal diseases. It is like throwing away money, to lime or marl wet lands; therefore drain yours, if you have any, and thereby add fifty per cent. to their productive value.

Tops and blades.—See to the saving of these at the proper time, as there is a long winter coming, when your stock will require all the provender you can accumulate, to keep them in good condition.

Cow-stables, and Cow-sheds.—If you have not such accommodations on your farm, have them built forthwith, your own interest and humanity concur, in enjoining their construction upon you as a duty.

Cattle that are comfortably housed in winter, will subsist upon one-fourth less food, and come out in the spring in infinitely better condition, than those which have to buffet the storms without covering to shelter them from the weather.

Turnips.—If you have not thinned and worked your turnips, do so the first week in this month. By attending to this, you will largely increase their product.

Rats.—If you have not destroyed these destructive animals yet, do so without further delay; for every day you permit them to roam about your granary and barn, will be at an expense to you of half a pint of grain a head.

Agricultural Fair.—Recollect that at the approaching *Fair* of the MARYLAND STATE AGRICULTURAL SOCIETY, it is expected, that every farmer and planter associated with it will DO his full duty—that he will not only be present himself, but bring with him the products of his fields, his orchard, his garden, and his dairy, and be well represented by his stock. The concourse of strangers from a distance will be great, and as a matter of pride, each member of the association should feel himself called upon to contribute his full share in giving interest and completeness to the exhibition. See to it, that it may be a *harvest home* of which every agriculturist may be proud.

WORK IN THE GARDEN.

SEPTEMBER.

Before we commence the operations of the month, it is but proper that we should say to our *Lady* readers, that THE GREAT FAIR OF THE MARYLAND STATE AGRICULTURAL SOCIETY will commence October 21, and continue 4 days. And the Association, calculating on the well known patriotism, zeal, and taste, of the *wives* and *daughters* of the Agriculturists, indulge the hope, that their best efforts will be extended, to render the department appropriated to their management the most interesting part of the exhibition. To them they look for rich and varied displays of choice and rare *flowers*, of *fruits, vegetables, poultry, household manufactures, embroidery, domestic wines, cordials, preserves, pickles*, and the products of the *dairy, bread, cakes, &c.*,—and that perfection may crown those displays, they trust that the most perfect of all things else

—the *Ladies*—themselves, will be there, to increase the interest, impart a charm, and hallow the proceedings of their husbands and brothers.

Having discharged this part of our duty, we now turn to matters which should be attended to in the garden.

Spinach.—Thin out your spinach, and while doing so, give the plants a good hoeing.

This done, prepare a bed, by manuring, digging, and raking it well, and drill in some seed, to furnish a supply of this excellent vegetable for next spring's use. The *prickly sort* stands the cold of winter best. That you may make the most of the ground allotted to your spinach, it would be well to sow some lettuce seed between the rows.

Lettuce.—If the lettuce plants you sowed last month are large enough for transplantation, prepare a bed and set them out as early this month as possible, in rows about a foot apart, placing the plants about 4 inches apart.

Towards the latter part of this month, sow lettuce seed in frames for winter use.

Radishes.—In the beginning of this month, manure a warmly exposed border, or part of a bed lying well to the south, dig, and rake it well, and sow fall varieties of radishes.

Celery.—Earth up your celery, but be careful not to cover the hearts of the plants. This work should always be done in a dry time,—lay the stalks up with great care and neatness, so as not to injure them, as, when bruised in working, they are apt to become mouldy and rot.

Small Sallading, of all kinds, may be sown in warm situations during the early part of this month.

Turnips.—If not already done, thin out your turnips, so as to stand 8 or 10 inches asunder, and stir the ground with the hoe; but do not hill up the bulbs.

Cabbages.—Keep these clean of weeds and grass, draw some earth around the stalks, and stir the ground well between the rows.

If the weather should prove dry, see that your gardener waters them freely. Nothing contributes more to the growth and luxuriance of cabbages, than a few good applications of soap suds.

Sowing Cabbage Seed.—If you desire to have a supply of early cabbages for your family *next summer*, have a bed on one of your borders facing the south, well manured, dug and raked, divide it into several compartments and sow different kinds of early cabbage seeds in each. In selecting your seed get such sorts as will head at intervals of ten days or two weeks apart, so as to secure a continuous supply of cabbage during the entire summer, and early autumn. The following selection would probably be as good as any other for such purpose. The *Early York, Early Nonsuch, Early Vanak, Large York, Early Sugar Loaf*, and *Flat Dutch*.

You should not delay sowing your seed beyond the 10th of the month, and it would be best to sow them as near the first of the month as possible.

Should the weather be dry when you sow your seed, after patting the ground with the back of your spade, give the seed bed a good watering. Continue watering every afternoon until the plants come up, or until a rain occurs.

When the plants first come up, dust them with a mixture of three parts *soot* and one part *flour of sulphur*.

To promote their growth, and prevent the lice and fly from destroying the plants, give them waterings with the following solution: Place half a bushel of horse dung in a tight barrel, on the top of the dung place 1 quart of soot, and 2 ounces of flour of sulphur, tied up in a bag, fill the barrel up with water. In 24 hours this tea will be fit for use. Twice a week water the plants with it. The barrel will bear being filled up several times.

In about 6 weeks your plants will be ready for transplantation into the open ground, when we will inform you how to prepare the ground for their reception, and set them out.

Cauliflowers.—Prepare a border, or bed, as recommended for cabbage plants, and sow cauliflower seed. In 4 or 5 weeks after being sown, the plants will be large enough for removal to the frames,—where they should be set out about 4 inches apart, and be treated as we shall hereafter direct.

Cauliflower and Broccoli.—Should the weather be dry, you must see that your gardener gives each evening a liberal allowance of water to your cauliflower and broccoli that you expect to be in flower next month. These are thirsty plants, and cannot do without water. See that they are kept clean and the earth open.

Siberian Kale.—This vegetable is about the best of all spring sprouts. It is perfectly hardy, stands the winter's cold, and is very productive.

Preparation of the bed, &c.—Select a dry loamy bed, facing the south, or southeast, manure it heavily with good strong manure, dig that in a full spade deep, rake; then make a compost of 6 parts well rotted manure, and 2 parts ashes, spread it about an inch deep over the bed, rake it well in, then sow your kale seed about as thin as turnip seed are sown, rake them gently in, pat down the earth with the back of your spade, or roll it with a light garden roller, and strew a mixture of equal parts of ashes and plaster over the bed. If you prepare a bed as herein directed, and sow the seed from the 1st. to the 10th. of this month, you cannot fail to have a full supply of these delicious sprouts, next spring, which will be in readiness when your cabbage sprouts give out, and will continue tender and nice for several weeks—and at a time too, when there is a general scarcity of other vegetables, which circumstance increases their value much.

Seeds.—As the seeds on the several plants you set out to raise seeds from, ripen, they should be gathered and spread on cloths or mats to dry. When perfectly dry, thresh out, and put them away in paper bags, which should be marked and hung up in an airy room.

Herbs, of all kinds may be safely planted out the latter part of this month. They will, if watered in dry weather, establish their roots in the earth before frost.

Strawberries.—Is your garden without a bed of strawberries? If so, it should not be; therefore have a bed prepared, according to our article on their culture, published in our August number. It is too delicious and healthful a fruit, for any gentleman to permit his garden to be without a bed of it; but if the gentleman's taste does not lie in that way, his good lady should see that the deficiency be supplied, as the garden is certainly her domain, and, as in the public eye she is answerable for its appointments, it is but just that she should direct them.

Weeds.—Destroy every weed in your garden.

Be emulous that yours shall be the cleanest one in the neighborhood. No matter how careful your gardener may be, let your own eyes search out the weeds in all their places of growth, and be sure to order their prompt removal. Weeds are justly a reproach to any gardener, for they are great robbers of the riches of the earth, and should never be tolerated within a garden enclosure.

Working various Vegetables.—Keep a watchful eye over every bed in your garden on which vegetables are grown, and never permit the earth either to be foul with weeds or to present a hardened surface to the enriching dews of the air. Have every thing worked at the right time and in the right way—In times of drought make your gardener ply his watering pot freely. Plants can only take in their food from the earth in a liquid condition.

EFFICACY OF BONES AS MANURE.

"Bones are composed of animal matter, phosphate of lime and magnesia, and carbonate of lime: 100 parts of the bones of an ox, analyzed by *Fourcroy* and Vanquelin, as given by *Davy*, yielded of

Decomposed animal matter,	51
Phosphate of lime,	37.7
Carbonate of lime,	10
Phosphate of magnesia,	1.3
	100.

The value of bones depends upon their power of producing ammonia and salts. For the former purpose, they are at least 8 or 10 times as valuable as cow-dung, and the quantity of salts is 66 times that contained in an equal quantity of that substance. They constitute, then, a most concentrated animal manure, and have been long used by the most intelligent farmers for improving their soils. * The value of this manure may be estimated by the quantity which is annually imported into England, amounting annually to $1,400,000 worth. It is estimated that this adds to the agricultural products more than 16 million bushels of grain. * * One bushel added to a load of yard manure, increases its value as determined by experiment, one-half.

Bone dust not only acts with great power, but its effects continue for a long time."—*Gray's Elements of Scientific and Practical Agriculture.*

Bones frequently vary in their elements, and especially in their animal matter, the per centage of that being, to a considerable extent, dependent upon their freshness.

The analysis given above, may have been of very recent bones; but be that as it may, professor Johnston gives the following analysis of the bones of a *cow*, which consist in 100 lbs., of

Phosphate of lime,	55½
Phosphate of magnesia,	3
Soda and common salt,	3½
Carbonate of lime	3¾
Fluoride of calcium,	1
Gelatine (the substance of horn,)	33¼
	100

Johnston, thus illustrates their value:

"While 100 lbs. of bone-dust, therefore, add to the soil as much *organic* animal matter as 33 lbs. of horn, or as 300 or 400 lbs of blood, or flesh, they add, at the same time, much *inorganic* matter, lime, magnesia, soda, common salt, phosphoric acid (in the phosphates,) all of which as we have seen, must be present in a fertile soil, since the plants require a certain supply of them all at every period of their growth These substances, like the inorganic matter of plants, may remain in the soil, and may exert a beneficial action upon vegetation, after all the organic or gelatinous matter has decayed and disappeared".

An analysis of bones which may have been boiled, we apprehend, would show a very different result to either of the foregoing analyses, as the process of boiling would carry off a very large proportion of animal matter—that part which, by decomposition, yields ammonia; and it may, therefore, be inferred, that such bones, for promptness of results, would be less valuable, though there would be no diminution of the phosphates—no depreciation of value in the latter respect.

In connection with the use of bones, it may be proper to remark, that their action may be promoted, by dissolving them in one-half their weight of sulphuric acid, diluted with water.

The practice of charring bones, lessens their efficacy, because the process of burning necessarily drives off nearly all the animal matter, and leaves, as the residium, little else than the phosphates, the lime, and the fluoride of calcium. The phosphates and lime are valuable, but the entire loss of the greater part of the *organic* portion of the bones, can but operate greatly to diminish their value, as it is from that part, as we have before stated, that ammonia is generated,—the great principle in manure, together with carbonic acid, which induces vigorous vegetation—from the first, albumen and gluten; from the latter, starch, &c. is derived. It is, therefore, evident, that, if we deprive the bones of their animal matter, we extract from them one of their greatest sources of efficient action.

We had prepared the above for our journal, before we received the following question from a respected correspondent of Orange County, Va.

"What is the relative value of bone dust ground of burnt bones, and that of unburnt bones?"

We know of no way of arriving at the relative value of burnt and unburnt bones, than by estimating the difference as equal to the percentage of gelatine shown by the above analysis; with this exception, that there would be more of the phosphates in 100 lbs. of burnt bones, than in 100 lbs. of unburnt ones. Professor Johnston, estimates the relative difference according to the freshness of the unburnt bones—in this way,—that from 11 to 20 lbs of unburnt bones would produce an effect equal with 50 lbs. of those that were burnt. Unburnt bones yield from 5 to 9 per cent. of *nitrogen*, whereas *burnt* bones yield *one* per cent.

If promptness of action is desirable,—and it certainly is,—the deprivation of the animal part of the bones, occasioned by the process of burning, would operate as a most serious loss, for the reasons stated above, and especially would such be the case in poor soils, but ill supplied with nitrogenous matters.

Situated as our friend is, without the means of having his bones ground—for they cannot be ground in a plaster mill—we think the best way for him to manage them would be for him to break them as fine as he can. With the aid of a neighboring blacksmith's sledge and anvil, he could soon reduce them sufficiently fine for dissolving them in sulphuric acid. The mode of doing which is this:

Professor *Norton* says:—

"Another most important form of applying bones

is in a state of solution by sulphuric acid (oil of vitriol.) To every 100 lbs. of *bones* about 50 or 60 lbs. of acid are taken; if the *bone-dust* is used, from 25 to 45 lbs. of acid is sufficient. The acid must be mixed with 2 or 3 times its bulk of water, because if applied strong it would only burn and blacken the bones without dissolving them."

"The bones are placed in a tub, and a portion of the previously diluted liquid poured upon them. After standing a day, another portion of acid may be poured on; and finally, the last, on the third day, if they are not already dissolved. The mass should be often stirred."

"*Another good way* is to place the bones in a heap upon any convenient floor, [earthen,] and pour a portion of the acid upon them. [The acid to be diluted as before.] After standing half a day, the heap should be thoroughly mixed, and a little more acid added; I have known it to prove very successful. * Thoroughly mix the pasty mass of dissolved bones with a large quantity of *ashes*, peat earth, saw dust or charcoal dust. It can then be sown by hand, or dropped from a drill machine."

We have dissolved bones by the *first* process, and have every confidence in the *second* one. We prefer to mix the paste with *ashes*, because, besides many other valuable organic substances, it supplies *potash*, a most important—nay indispensable element in all plants, and which is absent in bones.

The sulphuric acid will *economize the animal matter*, and present the whole mass in a state to be *immediately availed of* by the growing plants—nay, it will do more, it will act upon the silicates in the soil, decompose them, and prepare them to be taken up by the roots of the plants,—thus performing two salutary offices.

As sulphuric acid is very *corrosive*, care must be observed in handling it.

With regard to the quantity of bone-dust now applied, per acre, in England, it is much less than it was at the period referred to by our correspondent. Very satisfactory results have followed applications of 2½ cwt. of bones dissolved in acid. This quantity would give about 5½ bushels; the bones however were mixed with 3 gallons of train oil, dried with 30 *bushels of coal ashes*, and found to answer fully as well as 16 bushels of bones sown alone. We think that 6 bushels of bones, dissolved in sulphuric acid, and dried with six bushels of unleached, or 10 bushels of leached ashes would be an ample dressing for an acre of land, and could not fail to yield a productive crop, unless the season was such as to prevent the processes of vegetation.

The other subject, to which our correspondent refers, he will find fully discussed in our June number.—Ed. Am. Farmer.

Remedy for Roup in Fowls.—We find the following, in a communication from Mr. L. Rogers, of Willowvale, N. Y., published in the *Genesee Farmer*.

"Last fall I purchased a pair of fowls of one of my neighbors, which showed symptoms of disease [the roup.] It soon went through my flock of 20 fowls, and for some time seemed incurable; but as a last resort, I mixed with about 4 oz. of fresh butter, one table-spoonful of pulverized *sage*, one of *rue* and one of *soot*, and gave each fowl a pill of this, about the size of a cranberry, once a day for three or four days; and within two weeks they had all recovered."

THE CROPS—INSECTS.

Appleby, near Cambridge, Md., July 21st, 1851.

To the Editor of the American Farmer—

Dear Sir:—Your custom is to request a notice of the progressing crops, as well as of such as are completed, and it is in many respects a useful practice:—In compliance with it, in a few words, it may be truly said, that the wheat crops in Dorchester, are generally very fine in quality, and in quantity:—But, of our growing crops of corn, a very different report must be made; the season has been, with us, singularly unfortunate; with the exception of a few localities, we have had a continued drought for seven weeks—(excepting only, one solitary shower, of 1-5 of an inch, during that period,) ending on Thursday week—and for the greater and latter portion of that period, the thermometer ranging from 85° to 95° in the shade, and 112° to 118° in the sun, with a southwest breeze, which saved the feelings, but dried the earth to an unparalleled degree, and ruined the corn beyond redemption;—the frequent light rains, since they commenced, have considerably restored the burnt grass, and the gardens—but the corn has been irrecoverably blasted, with the exception, only, of a few favored spots in the county—and the insect tribe of devils have taken advantage of the withered condition of the plant, to infest it more than I ever witnessed before, in any season, as regards both the variety, and number of this disastrous creation.

Upon examinations frequently made of my withered and damaged stalks,—which are very many—I have discovered as many as five various species of insects, devouring them in different parts of the plants: 1st. In the main root, I have found that the wire worm (Elater Lineatus) tho' retired into the earth, to make his final transformation, had cut off, and consumed, that root; and a species of the aphides has seriously attacked the smaller, collateral, or fibrous roots; these last were still present, and engaged in their fatal operations in their different stages of existence, as detected by microscopic assistance; also, without the aid of the glass, I discovered, wrapped in the upper tender convolutions of the blade with the stalk, and chiefly where the tassel is being developed, numerous "Lady Bugs" (coccinella) in different periods of their growth—and, too, the chinch bug (Cimex) which were nidifying, as well as feeding upon the undisclosed tassel, and tender blades: and fifthly, or lastly, the celebrated "Bud worm," or spindle worm, (Gortyna Zeæ) working his ruthless ravages, entering the pith of the plant, from the earth, upwards, through the small apparent pistol holes, and pursuing his course to the top.

As a preventive against insects in the corn, I have, for several years, used a steep of gas tar, which has heretofore been effectual:—this season, I have tried on a large portion of my field, on good authority, tobacco decoction, and on the remainder of it the gas tar; but they have both proved equally incompetent to the purpose of protection against insects:—In fact, the corn plant, in its withered state, became a fit nidus for many insects, and hence their multitude and variety; and the only gainer will be my cabinet of entomology,—rather cold comfort for a warm blooded Farmer. Respectfully,

Joseph E. Muse.

Agricultural Societies.—*Twenty-five* Agricultural Societies have been formed in the State of Indiana during the present season.

ANIMAL MANURES—No. 1.

As there are many of our readers into whose hands the excellent little work of professor *Jas. F. W. Johnston*, entitled, "*Elements of Agricultural Chemistry and Geology*" may not fall, we shall transfer to our columns its chapter on *animal manures*. We are induced to do so, because, it bears on its face the evidences of laborious research, great familiarity with the subjects treated of, much astuteness of judgment, and a degree of common sense, in its elucidations, that must be refreshing to all inquiring minds. The *absence* of every thing like pedantry, or mystery, which characterises every sentence, assures the reader, at once, that the author, being master of the subject, himself, is anxious that his teachings shall be understood, and, as a consequence, the seeker after knowledge enlightened.—Editor of the American Farmer.

"OF UNDIGESTED ANIMAL MANURES.

"Animal substances, in general, act more powerfully as manures than vegetable substances—it is only the seeds of plants which can at all compare with them in efficacy."

"The *flesh* of animals is rarely used as a manure, except in the case of dead horses, or cattle which cannot be used for food. *Fish* is chiefly applied in the form of the refuse of the herring and pilchard fisheries, though occasionally such shoals of sprats, herrings, and even mackarel, have been caught on our shores, as to make it necessary to employ them as manure. These recent animal substances are found to be too *strong* when applied directly to the land; they are generally, therefore, made into a compost, with a large quantity of soil. Five barrels of fish, or fish refuse, made into twenty loads of compost, will be sufficient for an acre. The refuse of *fish oils*,—of the *fat* of animals that has been melted for the extraction of the tallow—of skins that have been boiled for the manufacture of glue—horns, hair, wool (woollen rags), and all similar substances, when made into composts, exercise, in proportion to their weight, a much greater influence upon vegetation than any of the more abundant forms of vegetable manure."

"Even the bodies of insects are in many parts of the world important manures of the soil. In warm climates, a handful of soil sometimes seems almost half made up of the wings and skeletons of dead insects. The peasant in Hungary and Carinthia occasionally collects as many as thirty cart-loads of dead marsh flies in a single year; and in the richest soils of France and England, where worms and insects abound, the presence of their remains in the soil must also aid its natural productiveness."

"*Blood* is rarely applied to the land directly—though, like the other parts of animals, it makes an excellent compost. As it comes from the sugar refineries, however, in which, with lime water and animal charcoal, it is employed for the refining of sugar, it has obtained a very extensive employment, especially in the South of France. This animal black, or *animalized charcoal*, as it is sometimes called, contains about twenty per cent. of blood, and has risen to such a price in France, that the sugar refiners actually sell it for more than the unmixed blood and animal charcoal originally cost them. This has given rise to the manufacture of artificial mixtures of charcoal, fecal matters and blood, which are also sold under the name of animalized charcoal. The only disadvantage attending these artificial preparations is, that they are liable to be adulterated, or for cheapness, prepared in a less efficient manner."

"*Horn*, *hair*, and *wool* depend for their efficacy precisely on the same principles as the blood and flesh of animals. They differ chiefly in this, that they are *dry*, while blood and flesh contain 80 to 90 per cent. of their weight of water. Hence a ton of horn shavings, of hair, or of dry woollen rags, ought to enrich the soil as much as ten tons of blood. In consequence, however, of their dryness, the horn and wool decompose much more slowly than the blood. Hence, the effect of soft animal matters is more immediate and apparent, that of dry substances less visible, but continuing for a much longer period of time."

"*Bones*, again, while they resemble horn in being dry, differ from it in containing, besides the animal matter, a large quantity of earthy matter also, and hence they introduce a new agent to aid their effect upon the soil. Thus, the bones of the cow consist of 100 lbs. of

Phosphate of lime	55½
Phosphate of magnesia	3
Soda and Common salt	3½
Carbonate of lime	3¾
Fluoride of calcium	1
Gelatine (the substance of horn)	33¼
	100

"While 100 lbs. of bone-dust, therefore, add to the soil as much *organic* animal matter as 33 lbs. of horn, or as 300 lbs. of blood or flesh, they add, at the same time, much *inorganic* matter—lime, magnesia, soda, common salt, and phosphoric acid (in the phosphates),—all of which, as we have seen, must be present in a fertile soil, since the plants require a certain supply of them all at every period of their growth. These substances, like the inorganic matter of plants, may remain in the soil, and may exert a beneficial action upon vegetation after all the organic or gelatinous matter has decayed and disappeared."

"From what is above stated, therefore, the reader will gather these general conclusions:

1. That animal substances which, like flesh and blood, contain much water, decay rapidly, and are fitted to operate *immediately* and powerfully upon vegetation, but are only temporary or evanescent in their action.

2. That when dry, as in horn, hair, and wool, they decompose, and consequently act more slowly, and continue to manifest an influence, it may be, for several seasons.

3. That bones, acting like horn, in so far as their animal matter is concerned, and like it, for a number of seasons, more or less, according as they have been more or less finely crushed—may ameliorate the soil by their earthy matter for a still longer period—permanently improving the condition and adding to the natural capabilities of the land." (To be continued.)

BIRDS—INSECTS.—The destruction of birds tends to the increase of insects. Birds delight in feeding on insects, and, therefore, when not destroyed by thoughtless gunners, serve as protectors to farmers' crops. Suppose, that in their search for worms, bugs, insects, &c., they occasionally take toll from the growing grain or fruits, the good they do so immeasurably outweighs the harm, that they should not only be tolerated, but receive the protection of every husbandman.

ACTION OF SALT AS A MANURE.

In illustrating the action of salts generally, *Dana* says:

"But let this action be farther illustrated; suppose there is added a salt, composed of *muriatic acid* and *soda*, that is, *common salt*, to the soil. By the action of the living plant, this is decomposed. Its soda or base, then acts on geine [*mould*]. If this has been long in an insoluble, and perfectly useless condition, it is now rendered soluble, and hence supplies plants with food. A very marked and decided effect is perceived from applying a small quantity per acre, of a salt, which certainly, of itself, contains no nutriment for plants."

"The effects here produced, may be due to the small quantity of alkali, acting on the indefinite quantity of geine; but the effect so often observed, of the minute quantity of salts, say one-hundredth of one per cent. of the soil, seems hardly compatible with the explanation. So far as it goes, this is its action; but very probably the quantity of alkali in the salt sown, is taken up as a geic salt, and immediately carried into the plants. The base then is withdrawn, yet the action continues. It continues through the whole time the fruit is forming. Some other source, therefore, of the permanence of this action must be sought. That is due to the acid constituent of the salt. *That*, when the plant decomposed the salts, was let loose and now acts on the silicates of the soil. It decomposes these, uniting first with the alkalies, and thus reproducing itself. It is again decomposed by the growing plant. The same round of action continues. Suppose all this had been witnessed on a worn-out, almost barren field. It is concluded at once, that there is some peculiar virtue in the salt applied, that it is, of itself, food; whereas, the whole action is in obedience to a general law applicable to all salt."

From the whole force of the above, it is evident, that, independent of contributing soda and chlorine to the plants, much benefit will be derived from the application of common salt, from the power possessed by the *soda*, comprising one of its elements, to promote the decomposition of the inert vegetable matters in the soil—from its power of converting insoluble substances into soluble ones—thus preparing them in a way to be taken up by the roots or feeders of plants—and in the power possessed by the other element—viz: *muriatic acid*—of decomposing the silicates of the soil, and rendering them also susceptible of being taken up as food by plants; so that salt, in its compound action and reaction, provides both organic and inorganic nourishment, for we look upon every substance that enters into the composition of a plant and promotes its growth in that light.

In connection with this subject, it may not be inappropriate to say something about the use of salt, the quantities to be used, when, where, and how it should be applied. According to the experience of European agriculturists, it is found to be most efficient when applied to lands remote from the seacoast. Applied to soils located inland, from 2 bushels up to 16, have been found of great service, whether mixed with barn-yard manure, or with composts, and ploughed in, or used as a top-dressing to a naked fallow, or to a meadow. Applied to lands in the vicinity of the sea, it has, in most cases, been found inoperative; the reason assigned for its non-action in such localities, is, that the soil was sufficiently supplied with saline matter by the spray of the sea-water, which is carried for several miles inland by the winds. This reason is a rational one, and we think it conclusive.

It is frequently applied to naked fallows, as a top-dressing, on soils being prepared for *wheat*, and other *small grain* crops, with the view of destroying the wire and grub worms: It is sometimes sown with oats, and harrowed in with them, for the same purpose, as also, on hungry soils, liable to suffer from droughts. The salt being an active absorbent, tends to maintain such soil, in a comparatively moist condition. Mixed in the proportion of 1 bushel of salt to 2 bushels of lime, and 5 bushels of ashes, and permitted to remain under cover, three months before being used, and then intimately mixed together, it forms an admirable top-dressing for meadow and pasture lands, as also for potatoes and turnips.

Many of the most judicious European farmers use it to slake their lime,—some effect this object, by dissolving the salt, making a strong brine, and using it instead of water, in the slaking process; while others, form alternate layers of lime and salt, in the proportion of 2 bushels of the former, to 1 of the latter. These composts are made into heaps, under cover, and permitted to remain three months before being applied; the heaps are, however, shoveled over before being spread on the soil, in order that the two substances may be intimately mixed together. Lime, thus treated, or slaked, is said to act with more efficiency the first year than when air slaked, or slaked with water,—and we can very readily recognise the reasonableness of this proposition, as instead of one, there are three agents to act upon the soil,—that is, *lime*, *soda*, and *chlorine*, each of which are constituents of plants, have their peculiar properties, and perform certain specific offices.

With regard to the quantity of salt to be used, when used alone, we have stated that from 2 to 16 bushels have been found serviceable, and we will add, that quantities above the last named, have not been found to increase product; while, when largely above that quantity, positive injury has been done, the salt being in excess. On the whole, we would never use more than from 2 to 6 bushels to the acre; we name these quantities, because we have used them with decided advantage. We believe, where the refuse salt of meat packers, and fish packers, can be had, it will be found a cheap and valuable manure on lands removed from the influence of salt water spray. Such salt is sold at from 12 to 15 cents per bushel.—Editor American Farmer.

GUANO—PLASTER—SWEET POTATOES.—Mr. *Thomas Affleck*, in a communication in the Patent Office Reports, thus speaks of the action of guano and plaster in the cultivation of sweet potatoes:—

"*Guano*, upon many plants; the result upon a part of the sweet potato crop this season was most marked. The soil thin, worn, yellow clay; the potato variety *yam;* the guano at the rate of about a bushel per acre mixed with an equal measure of *plaster* sown along the ridges, the plough immediately following; the result, *a less growth of vine*, with more than double the quantity of potatoes, and these all large and fine."

DURABILITY OF CYPRESS.—The gates of Constantinople, which were made of this wood, stood entire, from the time of Constantine, their founder, to that of Pope Eugene IV., a period of 1100 years.

For the American Farmer.

MR. EDITOR:—The desire for improvement is extending itself throughout the Agricultural Community. In common with my brother farmers, my mind is on the stretch, and numberless enquiries present themselves. Inexperience however in farming operations, leaves these enquiries unsolved, and I therefore take the liberty of bringing some of them before you, of submitting them to your superior judgment, and of soliciting such information upon the several points adverted to, as your leisure and experience may suggest.

1st. I will state that I have a lot of land, soil light, clay subsoil and a little rolling. It has been nearly exhausted, but for the last five years have been endeavoring to reclaim it. I have applied annually from 30 to 40 double ox-loads of stable manure per acre, and planted in sweet Potatoes, yielding at first *fair*, then *good* crops. I subsequently sowed clover and orchard grass thereon, the former proving a failure. In Sept. last it was put in Rye, pastured by sheep during winter to 1st. April, and now promises a good yield.

I propose sowing it in Peas immediately after cutting the Rye, and then treating it to plaster of paris. Now what future course would you advise, that I may secure the largest, or at least a remunerating crop of wheat, should I sow it in the Mediterranean variety, which I think of doing about 25th Oct., by which time the peas will have matured. Or do you consider it unadapted to that grain, and that it will not *pay*?

2nd. I have another lot of virgin soil, growth, oak and hickory, which has been mostly removed. Color, dark chocolate, clay subsoil, but which I consider too broken and isolated for tillage. I propose preparing it for Grass. Can I succeed? If so, by what process shall I bring it into condition for the seed; when to be sown, how, of what kinds and what quantity? Query. Are "grass" and "clover" two distinct terms, or is the latter comprehended in the former?

3d. In reference to a general system of improvement of my Farm at large. I will premise that it is generally undulating, sometimes broken; yielding from 15 to 20 bus. corn per acre, improved. Some parts light, others stiff, and all having clay subsoil from 12 to 18 inches below the surface. Farther. I am 12 miles from the nearest R. R. Depot, and 16 miles from a navigable stream. I have no Lime and no Marl. Now, under the circumstances, what is the most practicable, the most profitable course to pursue? My own impression is, that lime should constitute the basis of all permanent improvement. That article, however, will cost, delivered at either of the points above indicated, from $1,25 to $1.50 per cask or bbl. to which must be added the cost of hauling, which to a farmer, you know, is both heavy and expensive. Another impression, almost equally strong upon my mind, is, that thus situated, *I cannot use lime, profitably.* Am I right? If nay, please to correct me; but if yea, then what is the next best course?

In all your suggestions please consider me uninformed, and desiring information most minutely and circumstantially. Yours respectfully,

W. H. W.

N. CAROLINA, May 25, 1851.

ANSWER TO THE ABOVE QUESTIONS.

1. The application "annually" of "from 35 to 40 double ox loads of stable manure per acre, for five years," was sufficient to have brought our correspondent's lot up to a state of fertility, unless it be deficient in calcareous matter, which we think likely to be the case, from the fact of its refusing to grow clover, while it grew orchard grass. It may also have wanted *potash* and *phosphoric acid*; for clover requires many times more of these substances than do the grasses. This is, of course, mere opinion, on our part, as it is impossible to say what are the deficiencies in the soil of our correspondent's lot, unless we had an analysis of it, and equally difficult is it, to prescribe a remedy in the absence of such information. The best we can do, under the circumstances of the case, is to draw conclusions from the facts presented to our view. Governed then, by these, we would say, that if the lot was ours, we should, at any reasonable cost, procure a sufficient quantity of lime to give it a moderate dressing; for, we believe with our correspondent, that lime must constitute the base of all improvements of exhausted worn-out land, as there is scarcely a cultivated plant that does not require it as part of its food. From the distance our correspondent is from a point of supply, independent of the first cost of the lime, the charges on transportation would be heavy, and, therefore, if we were placed in his situation, we should rely on a smaller quantity or dose per acre, than is usually applied, and repeat the dose periodically, say at the beginning of each rotation, until we had given it an hundred bushels to the acre. We would commence with 15 bus. per acre. If *ashes* could be had, they would, we believe, suit the condition of his land better than lime, as they contain all the inorganic substances needed by the plants, and are rich in lime. If we applied ashes, we would treat the land to 20 or 30 bushels to the acre. It is probable that if he were to mix ten bushels of ashes with 5 bushels of bone dust, and a load of woods-mould, let it remain 5 or 6 weeks in heap, occasionally turning it over, that such application would be better than ashes alone, because in the bones there would be *organic* as well as *inorganic* food.

Looking at our friend's ultimate views, there is another method of reaching his object of getting his lot in wheat this fall. *Instead* of permitting the peas, which he contemplates sowing, to mature their seed, if he were to plough them in, when in blossom, and apply a *mixture* of 2 barrels of lime and *one* of salt, per acre, we have no doubt he might reap from his lot a remunerating crop of wheat; for we think from the extent of his applications of manure for the last five years, that the soil is sufficiently strong in *nutritive matter* to feed a crop of wheat. The lime and salt should be mixed together, under cover, and suffered to remain in heap for some weeks before being used, and should also be shoveled over two or three times to ensure its complete admixture. This mixture should be sown broadcast, and harrowed in with the seed wheat. It may be said that this is a *small dose*. It is so; made purposely so to meet the exigencies of the case; when one cannot do as he *would wish*, he must content himself with doing what he *can*—with conforming to surrounding circumstances. If there were not so much difficulty in the procurement of *lime*, we would advise the application of 50 bushels, or even a hundred per acre, as we believe the soil of his lot would bear it. Next spring, we would sow 12 lbs. of clover seed, and 2 bushels of orchard grass seed per acre, and treat each acre of the land to a bushel of plaster.

By ploughing in his crop of peas when they come into bloom, instead of permitting them to mature their seed, two important objects will be gained —*first*, he will have added to the fertility of his soil, and *secondly*, be enabled to sow his wheat earlier. The Mediterranean wheat is a good variety. When our correspondent ploughs in his crop of peas, he should increase the depth of his soil one or two inches. If in doing so he should bring up some of the clay subsoil, so much the better, as therein he would be likely to find some of those inorganic substances of which the surface soil is probably deficient, as lime, potash, phosphoric acid, &c.

2. With regard to his lot of "*virgin soil*," which he contemplates putting in grass, we think his best plan would be that pursued by the Kentucky farmers in seeding their woodland pastures, with the addition of the last named grass. Rake up into piles all the leaves, weeds, &c., cut up all the bushes, briars, &c., add them to these piles, burn the whole, and spread the ashes as far as they will go; then put on a loaded heavy harrow, and harrow the ground thoroughly several times, breaking up the ground around the stumps with a hoe and pulverizing such spots with a rake, if not reachable with the harrow. That done, he should sow on each acre, in September, 1 bushel orchard grass, ½ bushel Kentucky blue grass, and 1 bushel of Red-top grass seeds; next spring sow over each acre 12 lbs. of clover seed as soon as the frost is out of the ground, and *roll* it in. In sowing his grass seed in September, (the earlier the bettter) he should harrow it in with a *light* harrow, and roll the ground.

"Clover" and "Grass" belong to two distinct tribes of plants, though too commonly considered as one and the same family.

With respect to "*a general system of improvement*" for our correspondent's farm, without a knowledge of its constituent elements—which can only be obtained by analysis—we feel incompetent to prescribe any. If we knew its deficiencies, then we might be able to say what substances would supply whatever might be absent from the soil. It may, however, be laid down as a safe conclusion, that where land has been long in cultivation, without having been treated to lime, that such land would be greatly benefitted by an application of it. Owing to the remoteness of our correspondent's farm from a point of supply, the cost of a full dressing of lime would prove enormous; but costly as he represents lime to be, we think he might use lime profitably. He might begin with 15 bushels of lime, or 30 bushels of ashes. Such applications, aided by the course of manuring which he pursued on his first lot, would, in a very few years, advance the productive capacities of his lands, so as to render periodical applications of lime, or ashes, of easy attainment, as the increased yield would more than pay for it in a single crop, whereas, the treatment to a few additional bushels of either of these minerals, need not be oftener than the commencement of each rotation. In *La Sarthe, France*, the practice is, to apply 11½ bushels of lime every three or four years, as the length of the rotation may be, and it has been found to answer an admirable purpose, the land steadily advancing in fertility under the system. But in all such applications, clover, or grass, or both, must form a leading point in the system of culture, it being important to furnish the raw material to the soil, to be converted into manure by the mineral agents alluded to.

However expensive it might be for our correspondent, to haul lime from either the Rail Road depot, or from the navigable stream, he speaks of, he would find his interest promoted, by incurring the burthen of transportation from either point. In Scotland, where the dressings are heavy, the tenantry, often haul lime inland thirty miles, or more, and find it profitable. Like our correspondent, they look upon lime as forming the base of all systems for improving land, meet the consequent expense hopefully, and are not disappointed.

In conclusion we would observe, that our correspondent should strain every nerve, in the accumulation of the raw materials to form composts, as the more *mould* there may be in the soil, the greater will be its capacity for absorbing food from the atmosphere—the greater its capacity for affording food to the plants,—that by deep ploughing, he will increase the productive powers of his land—and that every field, as he may get it in wheat, should be sown with clover, and orchard grass, the succeeding spring.

Lands which will only yield 15 bushels of corn to the acre, should have two crops of peas, beans, buckwheat, or other green crop ploughed in before being limed, or receive a heavy dressing of barn-yard, or of compost manures in which vegetable and other decomposable matter abounded.

CURDSVILLE, Va., July 22, 1851.

To the Editor of the American Farmer.

Mr. Editor:—Having recently visited my brother in M., and having found to my surprise that he is not a subscriber to your valuable Farmer, I herein enclose you one dollar, for which you will please forward a copy of the "American Farmer" for one year to Mr. Joseph T. Crute, Boydton, Mecklenburg, Va.

I have myself been more than ten times repaid for my subscription, and I wish him to reap some of the benefits derived from your paper, as well as myself; for it needs only to be known, to be appreciated.

I followed your advice last fall, in fallowing my wheat land deep, and in applying guano to that which was thin, and the crop has satisfied my most sanguine expectations. I have consequently ordered a large supply for the coming fall.

Last spring I prepared a lot of Tobacco, by applying guano and charcoal, and the Tobacco now looks *very* promising, considering how dry we have been.

Our crops of corn and Tobacco are suffering *very* much for the want of rain. It is impossible for us to make an average crop of either, and unless we have rain soon, our crops will be almost entirely ruined. Very Respectfully,

J. V. CRUTE.

GALESVILLE, Caroline Co. Va., 13th July.

I have not threshed my wheat yet, but expect to do it next week—A finer crop of straw, (and the head is well filled) I never saw, than grew on the poorest sort of land, from the application of 125 lbs. of guano, and 5 bushels of ground bones per acre, and well got in.

Corn is tremendous on pine old fields—used 150 lbs. guano, and some ashes.

The Lime and Salt mixture is also very good upon corn. With great respect,

L. W. ALLENS.

ON THE CULTIVATION OF CORN.

To the Editor of the American Farmer:

After begging you to give me credit for my subscription to your next volume, which I inclose, permit me to make a few remarks on the cultivation of corn.

For many years I have been in the habit of preparing my seed corn by soaking it for twelve hours or more in soap suds, then draining off the suds and mixing enough ground plaster with the corn to make it dry and convenient to drop. After the corn is up and the missing hills replanted, I make it a point to keep the field thoroughly clean of weeds and the ground loose. For this purpose I use the harrow, double shovel plough, single shovel plough or cultivator, according to circumstances. I am by no means afraid of stirring the ground deep, especially in a dry season. The following circumstance occurred in the farming operations of one of my neighbors about three years age. He had two single shovel ploughs, one new, large and strong, and the other old and rather indifferent. He also had two hands employed on his farm—a strong able-bodied man, and a boy. The new shovel plough with a powerful horse were assigned to the man, and the old shovel plough with a more indifferent horse to the boy, and each received orders to plough deep. The season proved to be dry, the ground hard, and of course the new plough did the work most effectually. The consequenee was that in a week the lands ploughed by the new plough showed manifest signs of improvement in advance of the other.—The corn leaves were longer and broader, and the corn looked much greener and fresher. In a short time the corn was ploughed the other way, and then the same result occurred again; so that my neighbour assured me, "his field looked like a piece of crossbarred linsey."—Even after the corn was ripe the difference could still be discerned, the ears on the deep ploughed lands being larger and better filled than the others. I will only add that my neighbour is a man of strict veracity, and very successful in raising corn,—his field of twelve acres having last year produced more than sixty bushels to the acre.

My own corn ground was prepared in the following manner, the land having last year been in wheat. About one hundred four-horse-wagon-loads of coarse manure from my barn-yard and stables were spread over a twenty acre field and then ploughed down, as deep as possible with a three horse plough. A compost was then formed of two hundred bushels of bone-dust, two hundred bushels of ashes, and four hundred bushels of rotten tanlowe, and applied to the land at the rate of forty bushels to the acre. This was spread as evenly as possible, the ground thoroughly harrowed, and then listed out for planting, forward a half foot by three; the listing out was done as shallow as possible with a light shovel plough.

I have seen my neighbours sometimes list out their fields with a heavy two horse plough, and then plant their corn in the bottom of the furrows, but in my opinion this is a bad management. By this means the best of the soil is thrown to one side and the corn is planted on the cold, barren sub-soil, which cannot fail greatly to retard its growth.

For many years past, I have been in the habit of cutting up my corn when nearly ripe, in the manner recommended by Edmund Ruffin, E-q. in a late No. of the Farmer. But I never permit the corn to be laid down upon the ground. Each laborer as he cuts it up, receives it upon his left arm, and immediately carries it to the shock. If the shocks are not more than six or seven feet in diameter at the base, they never spoil, and make an abundance of excellent corn-fodder. If the corn is laid down upon the ground and partially dried before shocking, both the corn and fodder are greatly injured, it being much more liable to mildew than when shocked up first just as it was cut. Let those who doubt, try it.

If ground bones are as beneficial to the soil as they are reported to be, I beg leave to suggest to my brother farmers that they have a considerable amount of dead capital lying about their yards and out-houses, which it would be well to put to use. After getting a bone mill in operation, I gave notice that I would give twenty-five cents a hundred for bones. The boys of the neighborhood soon went to work, and in a short time brought me more than six tons. The little fellows scanned the roads and fields in every direction with their baskets and carts, and what was a very pleasing circumstance, not one of them made the least attempt to defraud or deceive. With a single exception, they willingly received whatever the scales showed their small cargoes to be worth, and departed well satisfied. Should the bone dust prove to be beneficial, I shall think my experiment of use, not only in improving the soil, but in exciting a spirit of industry among my young friends in the neighbourhood.

"He that does good with his money and pelf,
Is a help to his neighbour as well as himself."

Yours truly, R. BISHOP.

District No. 7, Washington Co. Md. June 1851.

Grasses—EXTRACTS FROM LORAIN'S PRACTICAL HUSBANDRY.

Time of Cutting Grass for Hay. "Timothy and every other grass with which I am acquainted, yields the most, and the best hay, when cut in blossom. At that time the leaves have attained their full size, and continue fast on the stalk. The rich matters which form the seed, still remain in the stem, leaves, and flowers of the plant."

"*Orchard Grass* is very valuable. It springs very early. When cut off by the scythe, it neither waits for fresh shoots from its roots, nor until its wounds be healed, but continues growing on just as if nothing had happened. The leaves which have been cut will grow, on a rich soil, nearly, if not quite, one inch in the course of twenty-four hours, forming new points gradually as they increase in length."

"It is very observable, when it has been sown with red clover, and both cut off with the scythe at the same time, that it greatly outstrips the clover when cool weather commences in the fall, and soon becomes much taller than it. The stalk of orchard grass is very solid, grows high, and the leaves are abundant. Therefore the first crop of it will greatly exceed that of timothy. As horses and cattle eat the hay freely, and thrive well on it, I am compelled to believe it must be a much more profitable grass for this purpose. As it blossoms with red clover, and should be cut at the same time for hay, and will (except in high latitudes) produce a good first, second, and third crop, for mowing, if the soil be good, it must be greatly preferable to timothy, either for soiling, grazing, or hay."

THE DRILL—LIME AND GUANO—CLOVER.

Wm. Boulware, Esq., of Va. in correcting some errors of the reporter for the Southern Planter, of his remarks last winter at the meeting of the Farmer's State Club, gives his experience in the use of the Drill, and on the application of manures, which are worthy of attention—He says:

"The general result of my remarks as reported, in reference to Sinclair's Wheat Drilling Machine, is very unfavorable, and farmers might well be deterred from using this machine, if they had confidence in these statements. The truth is, my opinion is favorable to the machine. I purchased it last Fall, and put in most of my wheat with it, giving at the same time, much of my own attention to the working of it. In cleaned land, well prepared, the work was beautiful. This is true of fallow, as well as corn land. The wheat now speaks for itself, and is certainly more uniform than I have ever had it before. I incline to think it also more vigorous on account of the protection afforded against the winds of Winter by the ridges thrown up by the drill.

The advantages of the drill are, uniformity in the sowing of the wheat, and also in the depth at which it is deposited.—There is also the further advantage just referred to in the protection of the ridges. At the same time it is necessary to say, there is not that perfect uniformity I had anticipated. Where the land is foul, the tines are constantly collecting on their points little bunches of grass, which receive the wheat, and leave it in little heaps, instead of being diffused along the drill.* Again it sometimes happens that the wheat is pressed in some of the chambers, and becomes so compact, (especially if it is at all damp,) that it does not fall out on the revolution of the wheel. These are the drawbacks, and the same, I believe, pertain to all wheat drilling machines. Yet, in spite of these objections I shall continue the use of the drill, and I should be very unwilling to be without it. In foul land, I shall hereafter raise the tines and scatter the wheat without drilling it.

I should be very sorry if any one were prevented from liming his land by any reported statement of mine. I believe in the tide-water section of Virginia, it is the basis of all improvement, the cornerstone of every system of successful farming. The want of sufficient lime, seems the radical defect of our soils. All the manure of earth would not make them rich unless it contained lime. Fortunately all our stable-manure, farm-pen manure, ashes, guano, and indeed all the fertilizers that I know of, do contain lime; but unfortunately not a sufficiency to supply the wants of our soil. I have been using it thirteen or fourteen years. I generally apply it in the Spring to my corn land after it is ploughed up. Usually, I see but little effect of it on the first crop of corn. The larger the amount of vegetable matter in the soil, the greater the effect perceptible. On the wheat crop, there is more improvement.—And in the next rotation, the results are more striking. But the great important consequence of lime, is to enable the farmer to make clover on our lands. That secured, a fertile soil is within his reach.

I have now before me a beautiful example of the effect of both lime and guano.—Three years ago, I applied 50 bushels of lime per acre to a field of corn in the Spring. In the Fall, I gave to two acres of that land, two hundred pounds of Patagonian Guano per acre, and put the whole of the field in wheat. In the Spring following, I sowed clover on the part which had been guanoed, and some part of the adjacent land. The wheat looked much better during the winter and early Spring on the two acres, but as the season advanced it suffered for rain and lost its bright green color. The soil is light. When reaped, the two acres produced very little more wheat than the same quantity of the adjacent land. Thus far, the experiment seemed to be very unfavorable. But the clover took well, and the year just past, I cut from the two acres a most luxuriant crop of clover. That on the land adjoining, was not worth the cutting. The second crop of clover was a good one, and that I fallowed in last Fall, and put the land again in wheat. Now, the wheat on those two acres is one hundred per cent better than that on the land by the side of it, which was equally limed, and of the same fertility.

This experiment is valuable, as affording strong evidence of three propositions. First, that guano is not so evanescent as it has generally been believed to be. Secondly, that on light poor land, lime and guano may be relied on to produce a good crop of clover. And thirdly, that lime alone on such a soil without any assistance, cannot be expected to produce a good crop of clover; certainly not, in the first rotation.

But it may be asked if the guano alone would not have made this crop of clover without the lime. I think not. Both experience and theory led me to a different conclusion. But my observation as to this point has been limited. As to the rationale of the subject, we know that clover rejoices in lime, feeds on it, assimilates it. We know equally well, it has a strong antipathy to *sorrel* and usually flees from it; abhors an acid soil and luxuriates in the calcareous. Guano does not contain enough lime, in the small quantity generally applied, to correct the morbid acidity of our soils, to furnish an abundance for plants, or to prevent the growth of those acid nuisances, the spontaneous production of our lands. But one fact is worth a dozen "*a priori*" arguments. It is in default of well ascertained facts, I give you the argument."

*Messrs. S. & Co. have obviated this difficulty by placing the tines zigzag.

[The results of the application of guano, are generally adverse to the conclusions to which Mr. B. has arrived, so far as regards its value in the production of clover—On the poorest soils, guano has produced a good crop of clover.—*Ed. Am. Farmer.*]

A GOOD NATIVE COW.—Mr. William Perry, of Florence, Ohio, has what he calls a "*native scrub cow*," which supplied his family, consisting of 4 persons, with milk, and yielded in just 10 months, commencing March 10, 1850, 397 3-4 lbs. of good well worked butter, besides one churning of about 4 lbs. from which he was unable to make butter. Her food besides good hay or pasture, was four quarts of wheat bran per day.—*Genesee Farmer.*

MEDICINAL PROPERTIES OF THE APPLE.—"Baked sweet apples and milk is a luxury, excellent food, and *medicine*. We know a gentleman who, 10 years ago, was in a hopeless case of consumption, and by long and exclusive use of this dish, and a little bread for nutriment, and lime water for a condiment, he was cured. As one evidence of the severity of this case, and waste of lungs, one side of the breast had sunken in. This diet would cure thousands suffering from inflammatory diseases caused by high, rich, constipating food. It is also good for dyspepsia."—*Cole's American Fruit Book.*

WHEAT DRILL.

The subjoined letter was unavoidably excluded from our last month's number, being handed in too late. We insert it now with the more pleasure, as its writer is a wheat grower of great practical skill and discriminating judgment.

LOCUST HILL, Baltimore Co., July 14, '51.

The Wheat Drill I purchased [of Sinclair & Co.] last spring for the purpose of seeding Oats, has succeeded beyond my expectations. The ground where I used it was corn ground, and covered with heavy corn-stalks; my neighbors told me I would have to remove the stalks before I could succeed, or use the Drill to advantage. However, I put it to work, and found no difficulty. The zigzag position of the teeth or drills, gave an inclination to the stalks either to the right or left, and they passed off with but very little trouble. I feel also very confident, that the zigzag position of the drills will very much facilitate the seeding of ground that is lumpy, stony, or grassy, as should any impediment come in the way, or in contact with a leading tooth, there is room for it to pass off, the space being so much greater (measuring obliquely as the teeth stand in the machine) than if in a straight line.—The facility in which the quantity of grain to be sown per acre, is fixed, is so simple, and so easy of adjustment, in case of small or large grained wheat, it being simply done by turning a screw at one end of the shaft, and all of the cylinders are exactly and equally set. The grain falling from the cylinders into the tubes in view of the person attending to it, is of considerable importance, for if there is any obstruction, it is immediately discovered and as easily adjusted. The manner in which it is thrown in and out of gear, and raising one or all of the teeth, is very complete and easy to work, and can be attended to by a small boy with ease.

Several of my neighbors talk of getting Drills, being pleased with the operation of mine.

Yours, very respectfully, ELISHA S JOHNSON.

Since receiving the above, the following extract of a letter from *Jas. Galt*, Esquire, of Point of Fork, Va., has been placed in our hands. He says:

"I am so far exceedingly pleased with my experiments in drilling wheat. On all kinds of land it is taller, more uniform in height, of a richer color, with a broader blade, all showing a more vigorous growth." * * My drilled wheat on Tobacco land was as heavy or the heaviest crop I ever saw;—on clover fallow it was too thin from the extra size of the seed wheat."

EXTRACTS FROM THE NEW YORK STATE AGRICULTURAL TRANSACTIONS.—EFFECTS OF DRAINING.

Mr. *Daniel Gates*, of Sullivan, Madison County, says:—"I have tried both open and covered drains, but have been most successful with covered drains. I commence by ploughing deep in the dryest part of the year, generally in the latter part of August. I can ascertain where the springy places are, and can better decide how to average my ditches. I place the ditches so as to touch all the portions of the soil that are most moist, in order to drain it as complete as practicable. [Mr. Gates makes his ditches of loose stones on his farm and covers with flat stones or slabs. His ditches from 18 to 20 inches deep, and about 15 inches wide. He has ditches covered with slabs which have been made eleven years, and are still in good preservation "]

"As to the expense, it is but little more than to finish properly a good open ditch with sloping sides. The objections to these latter ditches are, that they so readily fill up, and occasion much waste of land. *The results of ditching, have I think increased my land at least three times its former value.* I have raised on this land so reclaimed, the season after the ditching was completed, the largest crops on my farm, of corn, potatoes, barley, and spring wheat. Some of it is now in meadow, which yields the first quality of timothy grass, where previous to its being drained, it was scarcely worth mowing and gathering, and the quality very inferior."

Mr. *Sutton* had 7 acres of low, *wet* land, which he cropped with oats for 4 years, putting on 25 loads of manure to the acre each year. He then underdrained it, cutting his drains 2½ feet deep, and filling 18 inches with stone, then filling up with earth; length of drain on 7 acres, 203 rods, cost 30 cents per rod. His crop before draining, *with manure*, was 31 bushels per acre. After draining, first crop, *without manure*, 89½ bushels, and has continued to produce well."

What an illustration of the truth of Falkner's declaration, is afforded by Mr. Sutton's experience!—the former says:—"*To lay manure upon wet soils, is, indeed, to throw money away!*" For 4 successive years Mr. S. applied 25 loads of manure to each of 7 acres, and got therefrom 31 bushels of oats per acre!!; he then drained the same land, and, *without manure*, it produced 89½ bushels of oats per acre!!! Comment is rendered unnecessary by the result.—*Ed. Am. Farmer.*

INSECTS INJURIOUS TO APPLE TREES.—We make the following extracts from a communication of Mr. A. C. Hubbard, of Troy, Michigan, published in the last Patent Office Report:

"The *Catterpillar* and the *Apple-borer* are those which affect the apple trees most here. The first is easily destroyed by attacking the nest when first formed; with a long stick with a crotch in it, the nest can be taken off and crushed with the foot, or if a sponge be dipped in spirits of ammonia and attached to the end of a long pole and turned round slowly in the nest, every insect coming in contact with it will be killed."

"The attacks of the *Borer* may be prevented by keeping the bark smooth and washing it every spring with soft soap or weak lye."

We believe a more effective preventive will be found in a mixture composed in the proportions, 1 gallon of *soft soap*, 1 quart of *salt*, and 1 lb. of *flour of sulphur*. It can be applied with a white-wash brush. If the bark is mossy or scabby, the tree should be scraped before the mixture is applied.—Editor American Farmer.

THE WESTERN HORTICULTURAL REVIEW.—We sometime since received the first number of a work bearing the above title, published in *Cincinnati*, and edited by *Jno. A. Warder*, M. D. Its editorial department is conducted with skill and ability—its communications and selected matter, admirably adapted to the purpose for the promotion of which the journal has been established—the dissemination of horticultural knowledge, and the advancement of that, and kindred arts. We tender to its accomplished conductor the right hand of fellowship.

Wax Apples.—Mr. Jno. Boyd, Jr. has left at our office samples of these apples, which are used for preserving—they are beautiful and perfect, the size of a cherry—he has 13 varieties, from trees imported from Germany.

FRUIT TREES—DISEASES AND INSECTS.

(Continued.)

The Gum in Stone fruits.—The *cherry, plum, apricot,* and *peach,* are all more or less subject to this malady. The cherry is particularly liable to it in the West. It is produced by several causes, such as a wet soil, severe pruning at an improper time, violent changes of temperature, etc. The gumming of the cherry in the West, is considered by some to be owing in a great measure to the bark not yielding naturally to the growth of the wood, and hence they practice longitudinal incisions on it.—The Cherry tree has a very powerful bark, and in some cases it may not yield naturally to the expansion or growth of the wood. We have seen about a foot of the trunk of a cherry tree, several inches smaller than the parts above and below it. The bark was as smooth as glass on it, the first rind being unbroken, whilst on the large parts this was quite rough. This was a case arising from the obstinacy of the bark, and could only be remedied by longitudinal incisions on the small part.

It is most probable that the extent and severity of this disease in the West is owing to violent changes from a hard frost to a bright sun and rapid thaw, by which the sap becomes deranged, and accumulates in masses. Trees that are branched near the ground, will be less likely to suffer than those with tall bare trunks. Where it has made some progress in any tree, the only remedy is to pare off the diseased bark, clean off all the gum, and let the surface dry up, then apply a plaster of grafting composition, or a solution of gum shellac in alcohol, put on with a brush, as recommended by Mr. Downing.

When the stone fruits are pruned severely in the spring, the sap does not find sufficient vent; it accumulates in masses and bursts the bark. This fact should always be kept in view in pruning, and a sufficient supply of active buds to be kept to absorb the sap."—Barry's Fruit Garden.

(To be continued.)

The Drill—Culture of Rice.

To the Editor of the American Farmer—

I see much discussion going on at the North, as to the merits of the Drill husbandry. We have long settled the question here in favor of it. All of our Rice crops, are cultivated in this manner, but our drills are generally 15 to 18 inches apart, sometimes, though very rarely, less than 15 inches, and about as seldom, more than 18, made by some simple plow, or even by hoe. The object in having the rows or drills so far apart, is to allow it to be cultivated by the hoe, which though expensive is found to be very profitable. That the drills are not too far apart for large crops to be made, is proved by the fact, that the product is from 40 to 100 bushels per acre,—very frequently, 60. 70 and 80. I have always sown oats in this way, finding from experience, that with out the after culture, the seed and sowing are almost money and labor thrown away.

A strong, simple, durable and efficient machine, trenching, sowing, and covering one or two rows at a time, or even only one row, and trenching and sowing only, that could be furnished at a moderate price, would, I think, find a ready sale at the South. I have found Mr. J. S Eastman's wrought iron subsoil plow an admirable implement for *cultivating* drilled crops that admit of the Horse hoe, and much better than the hoe.

Your large wheat or grain growers could no doubt learn much on this subject from some of our most successful Rice planters, whose system and success are hard to beat in this or any other country. (*I am not a rice planter*)

Admiring the liberality, zeal, energy and ability with which you conduct your valuable journal, I hope that your success and subscription list may fully equal your utmost wishes.

Yours respectfully, Robert Chisolm.

Beaufort, S. C. 30th July, 1851.

[We have recently had a call for information on the subject of Rice Culture—Mr. Chisolm would confer a favor on us by inducing some of the Rice planters of his state to give us a paper on the subject.—*Ed. Am. Farmer.*]

TO GARDENERS.

Mr Editor—Allow me the use of your columns, to make a suggestion to some enterprising man, who may be acquainted with the practical details of landscape and kitchen gardening.

The very valuable publications, both in the form of books and periodicals and newspapers, in reference to these subjects and to rural embellishments generally, have given a new spirit to the delightful pursuits of Landscape and Kitchen Gardening.—The English publications of Loudon and others, and the American publications of Mr. Downing particularly, have done much to wake up a spirit of progress and improvement in these pursuits. But after all the very interesting and valuable information given us by Mr. Downing, in many parts of our country the improver feels utterly at a loss in carrying into execution his plans, and he feels that he cannot afford to employ a gardener for the whole year. This is particularly true of planters and farmers of limited resources, but who are willing to engage the services of a professional gardener to aid him in laying out his grounds and in "getting under way" in his plans of embellishing and adorning his home, and in arranging and commencing the cultivation of his kitchen garden. This is true particularly of many Virginia farmers and planters, who are removed from cities.

The object of this note is to suggest to those who may have engaged in the business of gardening, as a pursuit, and who are not only acquainted with the principles of their profession, but also engaged in the practical operation—the labor and work—that they might obtain *profitable* employment in the country, by offering their services to go from farm to farm, working one, two, or more months at each farm. And the writer doubts not that, in a short period, after the gardener shall have *established* his character, both for skill and respectability, he could permanently locate himself and obtain employment for life, among those patrons who have tried him—for they will need him from year to year. Carpenters and other workmen thus obtain employment and *live;* why should it not be true of gardeners. An experiment of the kind was tried, and with success, too, by an old Englishman, in a retired part of Virginia, and he died while engaged in such employment of his time. H.

Pr. Edward, Va., May 27.

Should any enterprising man be willing to correspond on the subject of the above article, and will address a letter (with his terms, &c.) to "W. J. H., Pr. Edward C. H., Va." he will receive a reply over a real name.

PLANK ROADS.

As we are soon to have two plank roads leading out from the town into the adjacent country for short distances, anything relating to this new improvement must possess an interest in the public consideration. A comparison between the original cost and yearly repairs of the plank and macadamized road shows a decided advantage of the former in the matter of economy.

In the North, a plank road is estimated to last ten years. In this state, eight years would be about the average length of its duration. A late pamphlet on the subject reduces this average to seven years, and upon this assumption, draws the following comparison between the two roads of which we speak:

Original cost of plank road per mile, $1,750; seven years repairs, at $10 per year, $70; cost of relaying, $1,288. This makes a total of $3,108.

For the macadamized road, the original cost per mile, is $3,500: eight years repairs, at $130 per year, 1,040. Total, $4.540.

According to this calculation the original cost of a macadamized road exceeds the original cost, seven years repairs, and the cost of relaying a plank road, by twenty-five per cent. or more. Added to the plain advantages resulting to the farmer, in the reduction of the expense of teams and wagons, in consequence of lighter draught, this fact affords sufficient reason, at least, why experiments upon the improvement should be fully made, before the dictum of public opinion pronounces adversely upon its worth.

One argument used against the plank road is, that it will prove to be the insatiate destroyer of our finest timber. This might be urged against railroads, and yet they are everywhere constructed without this objection being called to mind. At first sight, this obstacle to plank roads appears to be entitled to serious notice, but a nearer glance satisfies us that it is entitled to no real weight. To be sure, a great deal of sound timber is required for the original construction, but, this done, very little more will be demanded for eight long years. Were we to make a yearly average of the wood needed, the amount would not appear so large.

Over an unusually hilly country the formation of a plank road is not to be recommended. It would involve a great expense to reduce the route to the ordinary level, and this would have to be done, as any elevation over a certain point would be dangerous at many seasons of the year. But exceptions of this character should frame no objection to the general adoption of the road.

It is unfortunate that new improvements are so often regarded with distrust, instead of their utility being tested fairly and at once. The latter is the proper mode to ascertain their merits or demerits. The theory of the plank road is essentially good, and we trust that the demonstration of their practical benefits, ere long, will bring them into general use. *Winchester Republican.*

NORTH CAROLINA—A GEOLOGIST.

The legislature of this good old state, with becoming liberality, patriotism and wisdom, at its last session, passed a law, *making an appropriation to sustain a geological survey of the State, and authorising the appointment of a geologist.* Such legislation is worthy of the people who gave to the world the first Declaration of American Independence—worthy of the present enlightened age—and cannot fail to conduce to much good. There are many parts of the state where it is impossible to procure lime for agricultural purposes, except at such high prices as to almost preclude its use. That the soils in such sections require lime, there can be no question, and there can be as little doubt, that an enlightened Geologist, would be able to find large deposites of calcareous matter therein, as well as elsewhere, and thus place it within the power of farmers to supply this great desideratum. In making the selection of the geologist, great care should be taken:—he should, besides high scientific attainments, possess a practical knowledge, and combine with these qualifications, energy of character, love for the science, and an industry that never falters. A geological exploration, conducted by such a man, would develop mineral resources of countless value. For ourself we have never doubted that North Carolina is rich in such resources from the sea-board to the mountains, and that, whenever they shall be rendered available to enterprise and capital,—and they would be by a well conducted survey—she will be found not to be excelled in mineral wealth by any state in the Union. It is, therefore, not assuming too much, to say, that a skilful geological survey of the state would add millions to the value of her landed property, open innumerable sources of employment to the industrious, and fill thousands of homes with the elements of competency, comfort, and happiness. That such may be the results of the contemplated enterprise is our most fervent prayer.

Since the above was written we have seen it stated, that the law authorises the appointment of a chemist, and not a geologist; whether the law contemplates either the one or the other, countless benefits must result to the State, if his labors be well and industriously directed. Indeed, full and profitable employment might be found for both. But, in our poor judgment, it would have been best had the state determined, in the first instance, to engage the services of an enlightened geologist, because he would have been able to determine and fix upon those localities, where deposites of calcareous matters are to be found, thus rendering them tributary to the use of the husbandmen of the state, besides unfolding those other deposites of minerals, which lie imbedded in the soil, which more properly belong to the uses and economy of the mechanic arts.

Experiments in Weight of Lime.—Mr. Henry Crist, in a communication in the Ohio Cultivator states that he has "tested the comparative weight and measure of lime in its different forms—noting the quantity of water necessary to slake, the amount incorporated with the lime in slaking, also the quantity evaporated, &c. Result as follows:—

1 bushel unburned limestone weighed,	142 lbs.
1 " limestone, fresh from kiln weighed,	75 "
Difference between burned and unburned,	67 lbs.

This bushel burned lime required just 20 lbs. water, applied a few pounds at a time, in five successive days to bring it into its most lively form, in which form it measured fully two bushels, good round measure, and weighed 93 lbs.: showing that out of the 20 lbs. of water applied to slake it, 18 lbs. were incorporated with the lime, and 2 lbs. evaporated. Increase in slaking, 24 per cent."

ADULTERATION OF GUANO.—"I am inclined to believe that Guano is not so much the product of the class of birds mentioned as of some species of penguins, ducks, &c. I have seen their dried bodies brought from the guano deposits, and they resemble birds of these latter classes. This manure seems to have come into special favor in the middle states, to which importations are now chiefly confined. It is found to produce there all of the effects ascribed to it abroad, and is eagarly purchased at high prices. I am not aware that we have as yet had many cases of adulteration in this country, but the temptation to some operations of the kind is strong, and as the demand increases they will doubtless be attempted. Farmers will therefore do well to be on their guard, and if their purchases are not made of parties in whom they can trust implicitly, to insist on a warrantee that will enable them to recover damages in case it was not what it was represented to be. The most barefaced impositions are now being practiced in England. Certain parties have lately sold a species of loam resembling Peruvian guano, at a high price, the bags having been dusted, both inside and out, with some of the real article to counterfeit the true smell. It is not perfectly safe even to buy guano from the vessel in which it was imported, for some houses have lately sent out vessels ballasted with materials intended to be mixed with the true guano as it is discharged into the hold. The only safe way is to buy under the warrant of a certificated analysis, made by some competent person. The farmers could soon force the dealers to have such analysis made upon samples of every cargo imported."

Professor Norton's appendix in the Farmer's Guide.

GROUND AND UN-GROUND—COOKED AND UNCOOKED FOOD.—In a communication from the Society of *Shakers*, at *Lebanon*, New York, in the *Patent Office Report*, we find the following upon the relative value of ground and unground, cooked and uncooked corn for feeding and fattening cattle, &c.

"The experience of more than 30 years leads us to estimate *ground corn* at one-third higher than *unground* as food for cattle, and especially for fattening pork; hence it has been the practice of our society for more than a quarter of a century to grind all our provender."

"The same experience induces us to put a higher value upon cooked than upon raw meal, and for fattening animals, swine particularly, we consider 3 of cooked equal to 4 bushels of raw meal.

Until within the last three or four years, our society fattened annually for 30 years from 40,000 to 50,000 pounds of pork, exclusive of lard and offal fat, and it is the constant practice to cook the meal, for which purpose 6 or 7 potash kettles are used."

The Shakers are a close observing, calculating people, and go in for the practical realities of life; and, therefore, in the economy of food, must be presumed to be good judges. For ourself, we are disposed to believe the conclusions to which they have arrived are correct.—Ed. American Farmer.

VALUE OF THE MILK OF THE STATE OF NEW YORK.—Mr. A. L. Fish, of Herkimer County, a dairyman of much experience and observation, says: "A low estimate made from the Census taken in 1845, gave the value of the milk product of this state at that time to be forty millions of dollars."—N. Y. State Ag. So's Transactions.

GUANO AND PLASTER.—We give the following extract from a letter dated 30th July—It will be seen that Mr. Galt's experiment induces him to coincide with the views of our correspondent "*P.*"—we give this, as it is one of the few instances which have been made known to us, where "P.'s" theory has been maintained—tho' we could furnish many the reverse of it, did we deem it necessary.

"*Columbia, Va., July* 30.

We have been blessed in this neighbourhood, indeed in the whole Valley of James River with fine crops of wheat, and though many parts of the county have suffered severely from drought, in this immediate neighbourhood we have but little; it rained steadily and moderately all night and has not yet cleared off:—this will almost secure us good crops of corn and tobacco, both of which are promising.

I have used guano 4 years, with and without plaster, and from my experience am disposed to put a good deal of faith in Mr. Pleasants' theory, that it is better without it; at any rate, the only place where it was used in my last crop of wheat, and where I was disappointed in its effects, was where plaster was mixed with it; it was also the first piece of land on which I had used guano. A friend told me last summer that he saw a decided difference in his guanoed wheat; that which had no plaster being the best, the two pieces only separated by a road. With my best wishes for your success,

I am respectfully yours, JAS. GALT."

THE FARMER'S GUIDE.—This excellent work is now completed, and we most earnestly commend it to the patronage of every enlightened American Agriculturist. It treats mainly upon the Agriculture of England; but as many of the crops of that country are the same as our own, so far as they are so the management of the crops *there* are just as applicable to our country as it is to that of Britain; and as it is known, that great production attends the labors of British husbandmen, their modes of culture could be, with decided profit, availed of by us. Though treating of British husbandry, the *principles* involved are *universal*, and suit American Agriculture just as well. The work comprises 2 Royal Octavo vols., contains 1600 pages, and is illustrated by 600 wood cuts and 14 engravings on steel. Price in Nos. $5; bound in the best style of emblematic muslin $6. All the improved implements and tools of English agriculture are among the illustrations, and will afford many hints to our farmers, as well as agricultural mechanics, of great value.

The work can be had in this city of Mr. *N. Hickman*, Baltimore, near North st.

Our readers will recollect, that the work was edited in this country by Professor *Norton* of Yale College, whose notes go far to Americanize it; thus increasing its value to the American reader. Of prof. N. it is needless to say aught to those who know him,—to those who do not, we would remark, that among a World's Convention of Agricultural Chemists, America might stand up with feelings of pride, and, pointing to him, exclaim,—"*that is my son!*"

Tobacco in York Co. Pa.—The York Pennsylvanian says that in that vicinity, there appears to be more tobacco growing this season than was ever before known—the season was very unfavorable at first, but of late it begins to present a healthy appearance, and there is an expectation of a luxuriant crop.

AMERICAN FARMER.

BALTIMORE, SEPT. 1, 1851.

TERMS OF THE AMERICAN FARMER.

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Address, SAMUEL SANDS, Publisher,
At the *State Agricultural Society Rooms*, No. 128 Baltimore st. over the "American Office," 5th door from North-st.

TAKE NOTICE!!

POSTPONEMENT OF THE CATTLE SHOW

TO THE

21st, 22d, 23d, and 24th October.

It will be seen by the Proceedings of the *Maryland State Agricultural Society*, at the quarterly meeting held in August, that the period fixed for holding the Cattle Show, has been changed from Sept. to the above days in October. This change was made at the earnest solicitation of a number of the members and others desirous of being present, who could not leave home so early as the time which had been originally adopted.

MARYLAND STATE AGRICULTURAL SOCIETY.

The quarterly meeting of the Board of Managers was held August 6, 1851, at the rooms of the Society—*Charles B. Calvert*, Esq, President in the chair.

On motion of Mr. Sands, the premium list was reconsidered, for the purpose of amendment—It was then ordered, that the four premiums "for the best pen of Lambs," be stricken out, and the following premiums in each of the four classes of Sheep be substituted viz:

For the best pen of Ewe lambs, not less than 4, $4
do do of Buck lambs, do do, $4

And in the 3d. class of Agricultural Implements, the following be added, having been accidentally overlooked in making out the Prize list, viz:

For the best Portable Grist Mill, $10

Mr. Dobbin, of Howard Co. moved that the vote on the time of holding the Annual Exhibition, be reconsidered—which was concurred in—He then moved that the 21st, 22d, 23d and 24th of October, be selected for holding the same—Mr. Earl of Queen Anne's, moved that it be recorded that the change is made in consequence of the general wish of the members of the Society, and others desirous of being present—which was assented to, and the motion of Mr. Dobbin was then concurred in.

On motion of Mr. Holliday, of Kent, the Secretary was directed to prepare a circular, requesting the gentlemen appointed judges for the Exhibition to accept their appointment, and to notify the Secretary thereof prior to the 1st. Sept.—and in case of their inability to be present, to recommend substitutes from their county or neighborhood who would attend—and, in case no response was received, by the time designated, that the vacancies be filled by the selection of other persons to act as judges.

On motion, the Board then adjourned to the annual meeting, on the evening of the 20th Oct. next.

By order, SAML. SANDS, Secr'y.

PRIZES FOR THE SEVENTH VOL. OF THE AMERICAN FARMER.

To encourage and stimulate our friends and the well wishers of agricultural improvement, in their endeavors, we offer the following prizes for the largest lists of subscribers, to be received up to 8 o'clock on the first evening of the meeting of the State Agricultural Society, at its annual meeting the ensuing Fall—viz:

PRIZES OFFERED.

For the largest list of subscribers,	$50
" 2d largest list,	35
" 3d do do	25
" 4th do do	15

The subscriptions will be received at the club prices offered by us below, the CASH for which must be paid before the time at which the competition closes. Thus, those who may obtain lists at the regular subscription price of $1, if they will make up a club of 6, will be furnished the same at $5
" 13, do do 10
" 30, do do 20

One feature of the above offer to be noticed, is, that the names and cash of any who are now subscribers, will be received—heretofore it has been confined to *new* subscribers only.

The Prizes will be paid in cash, or in silver ware, or in any agricultural implements which may be exhibited at the State Exhibition, at manufacturer's prices. The names as received can be sent on, with the cash, and the number will be counted on the day specified, and announced at the time of the giving out the prizes of the State Society. All orders to be addressed to

SAML. SANDS, Publisher,
128 Baltimore street, Baltimore, Md.

Hams for the Cattle Show.—A correspondent at Hancock, Md. says he has some hams that would speak well for old Washington County, and thinks they would compete with those exhibited last Fall, at our Show—As the premiums are very liberal in this line for the coming Show, we hope our friend will not be backward in coming up to the scratch—Such a rich country as Washington County, should have been better represented than she was last fall—and we hope and expect that a more liberal spirit will be evinced this year—In a visit to her mountains during the past month, a number of her farmers promised to be here this Fall, and we hope they will not fail to bring with them some of the productions of their soil.

A letter from our friend Dr. Wharton, while on a visit to this county, says:

"Our farmers here are greatly pleased with the change of the time of holding our Fair, and promise to send down a strong delegation."

Sale of Mr. Bolling's Land, &c.—We again refer to the sale to take place 23d inst. The communication of the Hon. Willoughby Newton, in this No. will show with what ease the lands of Eastern Virginia can be improved.

The "Farmer" in South Carolina.—A subscriber in this state, in remitting his subscription for the volume, remarks:

"Your paper affords me great gratification; your interest appears very deep in its success. The general tone, advice and bearing of it, accords very much with my feelings, and I always try to put into immediate practice whatever strikes me. It affords many suggestions in time of need. I have always found the more I read (on this subject) to that amount was business facilitated, and its various difficulties more readily encountered.

I make a habit of purchasing all works on agriculture which *suit* me, and I consider good, as I believe it is IMPOSSIBLE to succeed without their assistance, particularly as that is my entire occupation. Your motto, or caption, is most *peculiarly* adapted to the entire subject of agriculture.

I have always maintained that the reason that men do not succeed, that they do not *know* their *true* and *real interests*, the *baneful* effects of ignorance. We must try and destroy the last, as our *greatest enemy*. I will try and send you subscribers."

Virginia.—A subscriber at Richmond, remitting for the subscriptions of his manager and others, says:

"B. manages my farm, and whilst I have the Southern Planter sent to him, I am so pleased with your paper, I have determined to send it to him, believing I shall be well remunerated for the expenditure. I will take pleasure in getting you all the subscribers I can. Whilst I am confined closely here, and can go but seldom to my farm, I hope by the application of guano, plaster, lime, ashes, clover seed, &c. to show to my neighbors the great importance of spending our money freely on our lands, if we wish to realize a good per cent. I have more than doubled my crops in the last three years, and hope to double my present crops in three years more. Many of my neighbors are now willing to spend their money freely in manures, that would not spend a dollar a few years ago, seeing from my crops the importance of their doing so, to be compensated for their labor."

North Carolina.—A subscriber at Mt. Airy, N. C., writes us:—

"You will find enclosed, two $1 notes, which I design shall pay my subscription to the "Farmer" for the years 1851, '2. I am very much pleased with your paper, and think it better adapted to our system of agriculture, than any publication of the day."

EASTERN VIRGINIA.—An esteemed friend, who is one of the best judges of good *farming* and *good* men, writes us, (Aug. 4,) that he has just returned from a tour of 4 or 500 miles in Eastern Virginia—and adds:

"My trip afforded me much gratification: as well as matter for reflection, and to profit by. I visited many of the estates, both large and small in several of the counties above Richmond; and also those far-famed—and justly so—on the James River:—Shirley, Berkley and Westover. I spent a day and night at Shirley,—and to say that you have partaken of the hospitality and kindness dispensed with liberal hands and hearts, at Shirley and Westover, is equivalent to saying that you have viewed some of the best land and best farming in the "Old Dominion,"—or indeed, any Dominion, old or new. I made copious notes of my "travels" for the gratification of my own fire-side circle; and if sufficiently at leisure, and in a writing mood,—not very likely to happen together tho'—I may perhaps refer to the subject again more in detail."*

* We hope that both the "leisure" and "writing mood" may speedily "happen together," and that our good friend may improve them.

Replies to a correspondent at Petersburg, Va.—A meadow cannot be formed out of your wet land until the ditches be cleaned out and the bushes cut off. The more valuable grasses will not grow on very wet lands; nor will they grow on lands that are worn out, without being assisted with manure. The kinds of manure for restoring such lands, you will find in the Essay on grasses, meadows, &c. published in the April and May numbers of the present volume.

If you would mix 2 bushels of ashes with every load of earth excavated from your ditches in cleaning them out, and then mix the whole together, in the proportion of one load of barn-yard manure, to 2 loads of the mixture, let it lay in heap 4 or 5 weeks, 20 loads of such manure would be sufficient to so fertilize an acre as to enable you to lay down your meadow in grass.

That part of your meadow, or low ground, that is subject to be covered with water, should be ditched and drained, so as to be made dry before you attempt to seed it with the artificial grasses, as none but the coarse aquatic tribes will thrive in water.

If you could obtain bone dust, 10 bushels dissolved in sulphuric acid, mixed with 10 bushels of ashes, and sown broadcast, after the ground was ploughed, would fertilize an acre.

For such land, after being drained and laid dry, we think a mixture of Timothy, Red top, and Orchard grass would be best; the quantity of seed in the following proportions:

1 peck Timothy seed
2 pecks Redtop, and
1 bushel Orchard grass seed per acre.

This combination would give you good crops of hay and luxuriant pastures.

If you apprehend your soil needs liming, it should be either limed or marled, after it has been relieved of its superabundance of water. 50 bushels of lime, or 100 bushels of marl to the acre would be enough. The soil, however, must be first manured. Sow your grass seeds in August or September, and broadcast your lime or marl next winter, when the ground is frozen. In the spring, as soon as the frost is out of the ground and the earth *firm*, roll your newly set meadow.

If manure is not available, sow and plough in, 2 successive crops of peas, and lime, or marl, at the time of sowing the grass seeds. This will give you time to procure bone-dust and ashes, to increase the degree of fertility of the soil. Bone-dust and ashes can be applied at your leisure, say in the fall of every second year—first harrow your meadow, then sow thereon 5 bushels of bone-dust and 5 bushels of ashes, broadcast and roll the land. This will keep up the productive character of your soil—nay, keep it moderately improving. Such applications would ensure you good crops of grass.

The Committee of the Valley (Va.) Agricultural Society, in their report of the Plowing Match noticed in our last, make mention of several other implements and machines, which we would be glad to see at the Exhibition of our State Society this fall, in the following terms:

"The committee before closing this report deem it their duty to notice some other agricultural implements that were on the ground: The Wheat Drill of Messrs. Gardner & Rohr was in operation, and elicited universal commendation, as did also that of Mr. D. E. Rohr, of Charlestown. A Grain Cradle, made by Mr. Jacob Wagely, which for neatness and workmanship, would be hard to beat—and with the present prospect, it will have a fair and ample field for operation before long. We also witnessed the operation of a Thresher and Cleaner, made by the enterprising and persevering machinist, George F. S. Zimmerman. It threshes, separates the straw and chaff from the grain, and bags it ready for the Mill. The whole of this operation is carried on with five hands. It will clean and bag with ease 200 bushels per day. Mr. Zimmerman had also on the ground other machines, which, we have no doubt, would perform well—all they want is a fair show."

The plows which competed for the prize, were entered by L. S. King, and Wm. Koontz, of Washington Co. Md. the first of which was successful; Wright & Steer, and Wright & Street, of Winchester; G. W. Eichelberger, and J. Wageley, of Jefferson Co.; L. W. Washington, of Halltown; Smith and Kemp, of Harper's Ferry; Jno. Terris, of Berkeley.

No.	Names of Ploughs.	By whom entered.	Cost	Weight	Draft.	Depth of Furrow.	Width of Furrow.
1	Hudson,	Wm. Koontz, (2 horse)	$12	136	875	7 1–6	13¼
2	Nipe's,	George Nipe, Va.	11	199	1000	8 11–24	18¾
3	Brace Coulter,	Kemp & Smith, Frederick	14	147	950	8½	16 1–12
4	Hudson,	Wm. Koontz,	14	172	950	8⅔	15
5	Boonsboro',	Daniel Schlosser,	14	164	916⅔	8⅓	13½
6	Washington County,	Jacob Moats, Ridgeville,*	14	150	858⅓	8½	15 5–12
7	Regulator,	Isaac Conrad,†	14¾	161	908⅓	9 1–12	15¾
8	Heffner,	D. Heffner, Hagerstown,	14	148	908⅔	8	15 1–16
9	Self-sharpener, S. Line,	Wm. M. Koontz, (2 horse)	13	139½	791⅔	6⅔	13 11–12
10	Challenge,	Samuel L. King,	14	148¾	908⅓	7⅔	14 1–6
11	Funkstown, No. 2,	Cook & Routzahn,	13	157	916⅔	8 58–100	15 1–6
12	Zentmyer,	Samuel Zentmeyer,	13	166½	908⅓	8½	15⅞
13	Funkstown, No. 3,	Cook & Routzahn,	14	168	933	8 3–12	15 7–12
14	Woodcock,	Samuel Wilt,	12½	156	900	8 5–12	14 2–3

*2d Premium—†1st Premium.

These plows which competed for the prize, were entered by L. S. King, and Wm. Koontz, of Washington Co. Md. the first of which was successful; Wright & Steer, and Wright & Street, of Winchester; G. W. Eichelberger, and J. Wageley, of Jefferson Co.; L. W. Washington, of Halltown; Smith and Kemp, of Harper's Ferry; Jno. Terris, of Berkeley.

PLOWING MATCH.—The Plowing Match, noticed in our last, to take place in Washington Co. Md. on the 1st Aug. by the Manor Agricultural Society, was attended by a large number of farmers, of Maryland, and from the neighboring counties of Pennsylvania and Virginia. There were fifteen Plows entered, and the Judges awarded the first premium to Mr. Isaac Conrad, for his Plough Regulator No. 7, and the second to Mr. Jacob Moats, for his Washington County Plough No. 6. They have also awarded the premium of three dollars to the best Plowman, to Mr. Peter Shannel, and the premium of one dollar to William Butler as the next best. The premium of three dollars for the best Plough team was awarded to Mr. John L. Cunningham, of Virginia.

"The committee conclude their report by bearing testimony to the general good feeling that existed among the many competitors, and the zeal and readiness with which they assisted each other when assistance was needed. The mechanical execution of all the Ploughs was very superior, and reflected no small degree of credit on the skill and intelligence of their manufacturers. The committee do not consider it out of place in congratulating the Association upon the interest with which the Agricultural community regarded this first public exhibition of its objects, and they indulge the hope that the spirit then manifested augurs brightly for the future."

"Imitating the course which the committee believe is generally adopted at Plowing matches, they have given below the general data upon which they have based their decisions, remarking however that the manner in which each Plough performed its work constituted an essential element in forming their judgment. The main object was to ascertain what pattern Plough does the best work with the least labor to the team. For the satisfaction of all, the committee give the cost, weight, draft, depth and width of furrow of each Plough as recorded."

The address of Mr. Roman, on the occasion, is spoken of as one of distinguished ability, abounding in scientific facts, important to farmers, and altogether of a practical nature—and a general desire was manifested for its publication. Dr. John O. Wharton, after Mr. R. concluded, was called upon, and entertained the audience for a brief space, with remarks upon experimental farming conducted by him. The Doctor's remarks, (says the Herald of Freedom) like those of Mr. Roman, were received with loud and hearty cheers.

These exhibitions will have an important effect upon the agricultural prosperity of Washington County.

THE JOURNAL OF AGRICULTURE.—A new monthly Agricultural publication bearing the above title, has reached us. It is published at Boston, Massachusetts, at the Horticultural Hall, at $2 per annum.—Its editors are William S. King, Esq. and James J. Mapes, L. L. D. Its editorial matter is written with taste and ability, and its selections evincive of judgment. In welcoming its conductors into the brotherhood, we tender them our best wishes that their enterprise may be well sustained.

IMPROVEMENT OF WORN-OUT LANDS IN VIRGINIA.

The following communication from the Hon. *Willoughby Newton*, detailing his improvement of a worn-out farm in Eastern Virginia, will command the most intense interest. His success should not only stimulate the young men of the good old commonwealth, to remain at home and improve their patrimonial estates, but should attract capitalists from abroad. It must be obvious that there is no land in our country more susceptible of improvement—none offering greater inducements to investments. The facts stated are of peculiar value just at this time, and the thanks of the farmer are due to Mr. Newton for furnishing the statement, which is made at our request.

LINDEN, Westm'd Co. Va., Aug. 16, 1851.

To the Editor of the American Farmer—

I, to-day, finished threshing the crop of wheat on this farm, and, in compliance with my promise, proceed to give you the result. The farm contains three hundred and eighty acres, (380) and was purchased about fifteen years ago, at $4 an acre, a price then deemed high for "forest land." In a hopeful spirit, which I like to encourage in myself as well as in others, as not only conducive to success, but essential to happiness, I ventured to say of it, in the address delivered in October last, before the Agricultural Society of Maryland, "the whole cost of the farm was $1520, and I have good reason to expect, with a favorable season, from the crop now sown and dressed with guano, a bushel of wheat for every dollar of the prime cost of the farm." This was no doubt, deemed by many, a very extravagant expectation, and was probably set down to the credit of an over sanguine temper. The actual result, however, has far transcended even my hopes, the yield being 2070 from 102 bushels of seed, or over 20 for one throughout the entire crop. Forty-six bushels were sowed on clover fallow, and yielded 1040, or about 22½ for one. There were two varieties of wheat, the blue stem white, and Ruffin's early purple straw. The blue stem was sowed on the fallow and the better part of the corn land and produced from 80 bushels of seed 1668 bushels. The early purple straw was sowed on poor corn land, neither limed, nor otherwise improved, than by the single dressing of guano, and from 22 of seed yielded 402 bushels. The whole expenditure for this crop in guano, was about $400, and it was applied to both fallow and corn land in proportion to its supposed strength at from 120 to 210 lbs. to the acre.

It will be thus seen, that I have derived from this single crop not only "a bushel of wheat for every dollar of the prime cost of the farm," but have also the seed returned and 448 bushels to reimburse the money expended in the guano, to say nothing of the large quantity of straw and the greatly improved condition of the land. Besides the profit derived from the wheat, the farm furnishing an abundance of milk and butter, fruit, vegetables, and fuel for a very large family, and will produce of corn this year, about 1000 bushels, with every prospect of a great annual increase for the future. I leave you to calculate the profit of such an investment.

I have heard of larger yields from small lots dressed with guano this year, on land similar to mine, but I am not aware of any instance where as much as one hundred bushels were sowed, on any one farm of like quality, where the yield has been as great. I therefore infer, that although there may be no peculiar merit in my mode of applying guano, it cannot be very defective, and as it is a subject of great importance, about which there is considerable diversity of opinion, I take occasion to state my practice. The guano, after being sifted and reduced to proper fineness, is carried to the field in bags in the dry state, empty barrels are placed at convenient distances for the sower, and each bag in turn emptied into a barrel and mixed with water until it is wet enough to be sowed without blowing away. It usually takes a common bucketful to a bag. This is the only addition to the guano, and the water is used for convenience of the sower, without reference to any virtue to be derived from the mixture, though probably in a dry season that may be attended with benefit. The guano is sowed, as evenly as possible, on the surface of the rough fallow; and to ensure its equal distribution (the land having been previously laid off by furrows at 10 feet distance) it is sowed twice over. A heavy harrow immediately follows, which partially intermixes the guano with the surface soil, and prepares the land to receive the seed, which is then sowed and put in with the common *shoe horn* cultivator, followed by heavy harrows, which finish the operation. The guano is thus thoroughly incorporated with the soil, and neither remains upon the surface nor is buried too deep. Experience and observation have taught us, that all coarse manures should be applied *on the surface*, and all fine manures, not excepting guano, as near the surface as may be, consistently with their thorough incorporation with the soil. My countyman, Mr. L. Washington, a farmer of great intelligence and observation, informed me, that in compliance with the usual prescription, he buried guano, a few years ago, deeply, with the plough, for wheat. The crop was not very much benefitted, and the next year, when the land was prepared for corn, a large part of the guano was turned up entirely unchanged. On corn land my practice has been either to turn both wheat and guano in together with a light furrow, or to put in the guano first with a light plow, and to cover the wheat with a harrow. I have not perceived any material difference in the result. In this, as in all other matters on the farm, convenience and saving of time should be regarded.

I have been familiar with this farm from my childhood to the present time, and I have no recollection of its ever having produced as much as twenty-five bushels of wheat in any one year, until I commenced improving it. I purchased it merely as a healthy site for a residence, without the remotest idea of ever deriving a profit in money from it. For six or eight years, I did not deem any part of it capable of producing wheat, and none was sowed. The progress of the wheat crop from year to year, has been very remarkable. The first crop sowed was a total failure, not worth threshing, and was used as litter for stables. The 2d yielded 56 bushels; the 3d, by the use of one ton of African Guano and some lime and ashes, yielded 220 bushels; the 4th, from an expenditure of one hundred dollars in African Guano, (a very inferior article) produced 320 bushels; the fifth, from an expenditure of $200 in very poor Patagonian Guano produced 540 bushels; the sixth, from an expenditure of $300 partly in Peruvian and partly in Patagonian Guano, yielded 1089 bushels; the seventh and last

from $400 expended in Peruvian Guano, produced the crop stated in the first part of this communication.

During this period, nearly all the arable land has been limed, at the rate of 25 to 50 bushels to the acre, and the rotation changed as rapidly as circumstances would permit, from the old three shift system to the five field fallow system of the Pamunkey. The land has improved, if possible, more rapidly than the crops, and I have no doubt, will, with judicious management and a small annual expenditure in manures, go on to produce increased crops of grain and grass, until the ultimate point of production of the most fertile soils is reached.

In this improvement, every dollar expended has been refunded with profit, in the crops of each year, and the farm is certainly intrinsically worth now, more than ten times its cost.

These results are surely most encouraging, and should urge the farmers, especially the *young farmers* of Eastern Virginia, to devote their energies to the improvement of the soil, as the surest road to competence, if not to fortune. Unfortunately, we have not among us capital and labor sufficient for the full development of the resources of the country. Much of the land must, of necessity, remain unimproved, unless our young men will all remain at home, or we can derive population and capital from other quarters. I cannot believe, that a country, possessing all the advantages of this highly favored region, can remain, much longer, shut out from general observation, and I predict as its early destiny, universal improvement.

But I must forbear. I commenced to give you a few facts, and I find myself indulging in an essay. With best wishes for your success in the noble enterprise in which you are engaged,

I remain very truly yrs.

WILLOUGHBY NEWTON.

Bee Hives.—A correspondent asks where the Bee Hives recommended by Mr. Stabler (and for which he received a premium at our State Fair,) can be had. The plan was given in our number for April, 1850, and any one acquainted with the use of tools can make them from the engravings and description there given. We cannot pretend to say "whether this is the best hive in use"—but better testimony of its value than that given in our last, from such a man as Mr. Barnes, we would not desire.

Pea Vines for Milch Cows.—Mr. J. Q. Hewlett, of this city, informs us that he took his cows off of an excellent clover field, and put them to feed on the vines of the black pea, the result of which was, that the first week the product of the butter was increased from 16 to 21 lbs and the second week a still further improvement from 21 to 24 lbs.

Wheat.—We have received several samples of very superior wheat in addition to those heretofore noticed—among them, one from Jno. Q. Hewlett, Esq., raised on his farm near this city, the blue stem white wheat, and a very beautiful sample of this favorite variety—it is, we think, the heaviest wheat we have seen. Mr. Hewlett, by measurement, obtained 42 bushels per acre of this wheat.

We have also a sample left with us by G. S. Holliday, Esq. of Kent Co. of a variety called the N. York Golden Flint—Mr. H. exhibited it at the meeting of the Board of Managers of the State Society, on the 6th ult. and it was pronounced the finest sample of wheat seen this season. We have subsequently received a package of it from Jno. E. Gale, Esq. of Chestertown, who raised on his farm in Kent Co. about 265 bushels—he thus describes it—"It was sown on common land, unimproved; it is a forward wheat, equally as early as the Mediterranean—has suffered less by fly—is a smooth [white] wheat; does not grow very high—has as strong a stalk as any wheat I ever saw, and is very hard to shatter." Mr. G. says he obtained a few grains from a friend, and has been cultivating it for five years—he does not give the amount of the product per acre. His agent in Baltimore, Mr. John Wilmer, will have about 100 bushels for sale—he had sold near home, a portion of his product, when he wrote us, at $2 per bushel.

New Plow.—The Balt. Co. Advocate says that Mr. Longnecker, of Cockeysville, has for sale, at the low price of $5.25, an excellent kind of Plow, several of which are now in use in the neighborhood, and they are said to be preferable to any other.

DISEASE IN THE PEACH TREE.

HOPETON, near Washington, Aug. 15, 1851.

It has often been remarked, that the Peach, once so luscious and healthful, is becoming deteriorated, being more sour and a little bitter, and peach-growers have sought a remedy by picking much of the fruit before its maturity. With much labor and great care they have partially succeeded, but yet the fruit is too sour, and the quantity is much diminished by this practice.

By experiments with my trees, I have become fully satisfied that the injury to the fruit, and eventually the destruction of the tree, is caused by the grub or worm which preys upon the bark at the surface of the earth, extending to the roots, separating the bark from the tree, and thus depriving it of its sap or nourishment, and rendering it unable to sustain and perfect its fruit; hence its untimely fall or stunted growth. That it is lack of sap that causes sourness, any one may see by partially breaking a limb and allowing the fruit to ripen with its short supply of sap, and then comparing the fruit with that on the other portions of the tree.

The destruction of the worm (if my supposition be correct) is of primary importance. This, I think, can easily be done. I commenced my experiment with a few trees in March. After a few weeks, I found the appearance of the trees much better than others, and made thorough examination for worms, but found none living. I have had the balance of the trees like treated. The fruit was not picked or thinned, but the trees have perfected the largest possible quantity (many of them breaking, notwithstanding the props) of fair size, fine appearance and much better quality than they have before borne—many of them as fine flavor as I ever tasted. The trees have been examined by different persons, but no grubs have been found.

The manner of treatment may form the subject of another communication.

I have not experimented fully with the Plum, but hope for success with that also.

Respectfully, J. C. LEWIS.

[Our readers, we can promise, will be gratified to hear further from Mr. Lewis on this subject.—*Ed. A. Far.*]

APPLICATION OF BONE-DUST.—Our friend of Bruington, King & Queen Co. Va. is informed, that *bone-dust* is good manure for almost every vegetable product that grows. Whether the crushed bones which he applied to his crop of Ruta-bagas, will act efficiently or not, we are not prepared to say. Their action will depend upon the fineness to which they may have been crushed. Bones, applied to the turnip crop in England, are generally previously dissolved by Sulphuric acid; the mode of doing so will be seen in an article on bones in another part of our present number. If the season should prove *seasonable*, the partial decomposition of the crushed bones applied by our correspondent, may be effected, and, to that extent, will his ruta-bagas be benefitted; but as bones, unassisted, decompose slowly, without the aid of moisture and heat, as the Ruta-bagas grow rapidly, it is possible that the benefit they may derive will be but partial. If such should be the case, his investment will not be lost, as he will find the succeeding crop will be greatly benefitted.

Had our friend mixed two bushels of ashes, and 1 of salt, with each bushel of crushed bones, moistened the bones first, and left the whole in pie four or five weeks before using the mixture, shoveling it over two or three times during that period, the bones would have been sufficiently reduced to have given efficiency to their action.

Our friend asks:—

"If mixed with Sulphuric acid, would not the phosphate in the bones be destroyed, and a sulphate formed not so good or so available to vegetation?"

To this question we answer, no! the action of the Sulphuric acid would not be to destroy, but to separate the particles of which the bones are composed, thus rendering them more easy to be taken up as food by the roots of the plants,—new compounds would be formed, but these would be readily soluble in water, and, therefore, easily partaken of by the plants. We feel justified in saying, that 4 bushels of bones, dissolved in 100 lbs. of Sulphuric acid, would have a more powerful effect upon an acre of Ruta-bagas, than would 10 bushels of bones sown alone. The bone-dust, when dissolved in Sulphuric acid, should be mixed with an equal quantity of ashes.

For lasting effects upon the soil, crushed bones alone are best—for prompt action upon a growing crop, bones dissolved in Sulphuric acid are thrice as effective as the former. He that wants to ensure a full crop the first year should dissolve his bones—he that desires to improve his soil for future products should apply the bones undissolved.

A Maryland Farmer.—A correspondent of the "American," writing from Easton, Md. says that Mr. T. Hughlett has about 4000 acres of land, in that county, and that one of the tracts contains upwards of 2200 acres of the best quality land—situated about 4 miles from Easton, "and extends for several miles upon the Choptank river, a stream navigated by steamboats and vessels of the largest size. The banks in many places are forty or fifty feet high, and consist of the purest marl, thus affording the greatest quantity of rich manure. The barns, stables, quarters and other out-houses are new, large, and built in the most approved style. But the stock upon this plantation is one of the grand objects of attraction to the farmer. We could almost imagine ourselves in Old England, as we saw the Durham and the Devonshire cattle, the Cotswold and Bakewell sheep, the Chester hogs, grazing in clover up to their knees, as fat and as round as butter balls. Mr. H. has a Durham bull, appropriately called by the blacks "Goliah," from his immense size. He is about fifteen hands in height, large in proportion, and a most perfect specimen of the breed. As "Goliah" moves along, his head erect, his horns beautifully arched, the ground seems to tremble under his weight.—"Goliah's" calves sell for $30 or $40 each. The Durham and Devonshire cows are splendid looking animals, some of them giving five gallons of rich milk daily. The Devonshire oxen on this estate are the largest and strongest we have ever seen. Here are sheep that are worthy of exhibition at the World's Fair.* We saw a ram of the Cotswold breed that weighed 250 pounds, and yielded 18 pounds of wool, twelve inches in length, yearly. His make was beautiful, and his long, white and silky wool gave him a noble appearance.

Some of the Chester pigs, not four months old, weighed 150 pounds Mr. H. pays especial attention to his stock, and I suppose no plantation in the country has superior stock to this. Mr. H. though a young planter, is regarded as one of the best and most successful upon the Shore. He is now building an elegant mansion on the banks of the Choptank, upon one of his estates that joins the princely estate of his brother, Mr. W. Hughlett. The plantation upon which he is building is 60 or 70 miles from Baltimore, and steamboats to and from that city pass by it daily. The situation has a commanding view of the river for miles above and below it, with the adjoining country, presenting one of nature's most lovely panoramas. The grounds are to be laid out in a style suitable for such a residence, and adorned with ornamental trees and flowers. But of all the rare and lovely flowers which Mr. H. has upon his grounds, none are half so fair as that flower which enlivens and cheers his path through life, and whose smiles give to this earthly paradise its brightest charms. Mr. H. is one of the most hospitable and liberal of men, and whenever a school-house is to be raised, a church to be built, or any charitable object promoted, he gives largely; and upon this splendid estate, "shut out from the gaze of the rude world," he passes most of his time in sweet and elegant retirement, receiving from all who know him that most desirable of all titles, 'One of Nature's truest and best Noblemen.'

[* If is to be hoped that this public spirited farmer will have some of his stock at our Cattle Show this fall. There are a number of farmers in Talbot, who could make an Exhibition of Sheep which would do credit to any country.—*Ed. A. Far.*]

APPLICATION OF GUANO.—We seize the occasion to repeat our advice to our agricultural friends who intend using *Guano* this season, to use plaster, or ground charcoal, with it, to fix and prolong the action of the ammonia, which is perhaps its most efficient element. Such admixture would be advisable in all soils, but, in light, porous ones, we hold it to be indispensable. He who expends his means in the purchase of costly manures, should look beyond the growth of a single crop for his remuneration—he should look to the improvement of his soil for the growth of future crops,—and such being true economy, it should be an object to prevent the loss of the manure he may apply. Those who talk about guano and plaster being antagonistic to each other, speak without knowledge—know nothing about the matter.

AMERICAN MACHINES AT THE WORLD'S FAIR.

The London correspondent of the Philadelphia North American says:

A trial of a few agricultural implements which have been shown in the great Exhibition, was made yesterday at Mr. Mechi's model farm, at Tiptree-heath. Col. Johnson, of New York, was present on the part of the United States. The American reaping machines attracted much attention, but as the wheat was wet and unripe, only one machine worked to advantage. This was M'Cormick's.—The Times sent a reporter to Tiptree, and he says that about the success of this machine when tried under more favorable circumstances, there cannot be a doubt; and as to its advantages, they were sufficiently indicated yesterday by the loud cheers which burst from the large body of farmers assembled. The Times adds "that it is not a little singular that such an invention should come to us from America, where the short comings of the labor-market have compelled people to look out for mechanical facilities in carrying out their harvesting operations. There it has been in existence for seven years, while we in this country have been going on from autumn to autumn, dependent for securing our crops upon armies of impoverished Irish peasants, who come to reap, and remain to fill our work houses, swell our rates, and aggravate the moral and physical wretchedness of our surplus population." The "Morning Post" of to-day, referring to the meeting at Mechi's farm, and the trial of agricultural instruments, remarks of Mr. McCormick's machine, that twice did it go over the field, and, "without the slightest failure, cut the corn, leaving the stubble about the ordinary height, and throwing the several plants at the side of its path in heaps, just fitted for being tied up in sheaves. It is probable that some improvements and modifications of the details of this implement may be discovered, but its universal adoption must be a matter of certainty." "It must be obvious that, with this implement, the farmer obtains in a far greater degree a control over his harvest with which he never had before; and the extra wages paid to Irish reapers will be saved. This machine has been in general use several years in America, and its introduction here is one of the most important helps which the farmer has lately received from machinery. These very critics, who now speak in such high terms of praise of this American machine, spoke of it with ridicule when it was in the Crystal Palace! When, however, they discovered the practical utility of many of the American articles in the Exhibition, they are astonished at the ingenuity of the Americans. So M'Cormick's reaping machine will be awarded a first class prize."

A correspondent of the N. Y. Evening Journal, says that the *rain was incessant*, and it was proposed that the trial of the Reapers should be deferred—but the company being assembled at the farm of Mr. Mechi, who held an annual festival, for the examination of his crops, stock, &c. that gentleman insisted that the trial should proceed—"Mr. Mechi's crop was not ripe, but quite green—the crop was heavy upon the ground, and every thing as unfavorable as possible for the trial of the Reapers. The people present were clamorous for the trial, and the person having Hussey's Reaper in charge placed it upon the field, and a trial was made with it; but the grain was so green, that it soon clogged the machine, and it passed over without cutting it. This damped, as you may well imagine, the spirits of many who had hoped the trial would have been satisfactory. It was suggested by the other members of the Jury, that we had better not try M'Cormick's; but I informed them that the machine was there for trial, and it must be tried, as I could not consent that the gentlemen present, many of whom had come for the sole purpose of witnessing the trial, should go away with the impression that our Reapers could not do the work promised. McCormick's reaper was accordingly placed to its work, and with a single span of horses, it went through the grain, green as it was, cutting all before it. When I ordered the machine stopped, the crowd around it who had followed after very closely, were addressed by Mr. Mechi. He said to them: "Gentlemen—here is a triumph for the American reaping machine. It has under all its disadvantages done its work completely. Now let us, as Englishmen, show that we appreciate this contribution to our implements for cheapening our agriculture, and let us give the Americans three hearty English cheers!" They gave them, I assure you, with a will; and a fourth with a hip! hip! hurra! The jurors then required the machine to cut another swath, so that it might be timed, and its powers ascertained. Accordingly the machine was put in operation again, and cut 74 yards in length, in 70 seconds, doing its work first rate, and to the satisfaction of every one present. At this rate it would cut twenty acres per day during their usual hours of work here. A large number of the farmers present called upon me to express their great gratification at the result under such unfavorable circumstances, and said they considered the result a great triumph for the American machine, and that it had fully redeemed everything I had said in relation to its capabilities.

"Hussey's was afterwards tried upon a clover field and did the work well. A machine made after Hussey's, by Garret, here, with some alterations, was tried on a clover field, but would not work. The English machinists will learn by-and-by, if they expect to improve American Machines, they must learn to work them;—until they do that, their attemps to improve will fail, as this did. Another trial will be given when the grain is ripe, probably for the satisfaction of many who were not present, and who are anxious to see the machines work."

ANALYSIS OF A FERTILE SOIL.—A subscriber at *Cub Creek*, Va., in transmitting his subscription asks us to "insert in some future number, an analysis of a perfect soil." In compliance with his request, we give the following

Analysis of a new soil on the banks of the Ohio River, possessing great fertility.

Quartz sand and silicates, (sand)	87.143
Alumina, (clay)	5.666
Oxides of iron,	2 220
Oxides of manganese,	0.360
Lime,	0.565
Magnesia,	0.312
Potash and Soda,	0 145
Phosphoric acid,	0.060
Sulphuric acid,	0 027
Chlorine in common salt,	0 026
Humic acid,	1.304
Insoluble humus,	1 072
Organic matters containing nitrogen,	1.011
Carbonic acid united to the lime,	0.080

SHADE TREES.—A subscriber at Pomonkey, Charles County, Md., asks us:—

1. "What would be the speediest way of getting a good set of shade trees?"
2. "What the best kind of trees?"
3. "What the best manure?"
4. "Time of planting—management?"
5. "Would Guano act well on trees, and how used?"

Replies. 1. We presume that the speediest way of getting shade trees would be to buy them from an established nurseryman of good reputation.

2. As to the best kind of trees, that is a matter of taste, and must be determined according to the circumstances. If shade be speedily wanted, quick growing trees should be availed of. The *silver leaved Poplar* or *Abele* tree, is of quick growth and of great beauty, so also, is the *Honey Locust*. The *Ailanthus* or *Tree of Heaven*, grows with great rapidity, and is a beautiful tree, but there are two objections against it,—it sends up innumerable suckers, and the odor from its flowers is of the most nauseous and suffocating character. The *Paper Mulberry* is quick of growth, forms a beautiful tree, but, like the Alianthus, it sends up hosts of suckers. No tree, in our eye, is so graceful as our own *White Oak*. If tardy in growth, it is beautiful in form and foliage. The Horse Chesnut, English Elm, Sugar leaved Maple, European Linden, Tulip Tree, American Weeping Elm, White Ash, Weeping Ash, Mountain Ash, Beech, Sycamore, English Walnut, Shellbark Hickory, American, and Spanish Chesnut, and Osage Orange, are each and all fine lawn trees. In placing them, each tree should be allowed sufficient distance to derive the full benefit of sun and air, and have ample room for the expansion of the branches.

Each lawn should be interspersed with *evergreens*. Amongst these, the Weymouth or White Pine, Spruces, Arbor Vitæ, the Holly, and the Red Cedar, should not be forgotten. Nor should the Althea, Laburnum, Virburnum, Rose, Lilac, Snowball, and various other flowering shrubs be omitted.

3. A compost formed of 2 parts marsh mud, 2 parts stable manure, 2 parts ashes, 1 part plaster and 1 part bone-dust, would be as good manure as could be used.

4. As a general thing, we should prefer to plant the decidious trees in the fall. As to the time of planting evergreens, we should prefer the spring—Management; keep the ground around the trees clean, and moderately moist in times of drought.

5. *Guano* could be very advantageously introduced, as a component part of the compost named above. A hundred weight added to the enumerated ingredients, would increase the value of the manure. The compost should be formed into a heap and remain several weeks, say 6 or 8, before being used. It should, however, be shoveled over every two weeks during the time, to encourage decomposition and thoroughly mix the several parts.

GUANO AND PLASTER.

PETERSBURG, Aug. 13, 1851.

To the Editor of the American Farmer—

As bearing on the subject which has been in course of discussion between us, I enclose for publication a letter from J. Bunch of Chuckatuck, Va. Its character is of a nature to speak for itself. As the evidence accumulates in this matter, I hope to see you relieved from the necessity of periodically recommending the mixture of plaster and guano—at least as often as you have done in the last Am. Farmer. I have not taken the pains to count the number of times, but suppose they are not much short of a dozen in that single issue. T. S. P.

CHUCKATUCK, Nansemond Co. Va., Aug. 9, 1851.

SIR:—I beg you will pardon the liberty taken. Having seen in the Am. Farmer a controversy relative to Plaster and Guano, I have concluded to state to you, sir, the result of the plaster and guano on my crops. In the spring of 1850, according to information, I used them mixed in equal parts—dividing a good handful to 3 hills of corn, first covering the guano, then dropping the corn, and covering that. The roots of the young corn, so soon as they touched the guano, all died—of course I had to replant. I had 6 rows opened deep and drilled at the rate of 300 lbs. to the acre—covered it deep with the plow, and on top of it planted the corn. If the guano did the crop any good, I am not prepared to say so. I also applied it to sweet potatoes, cabbages, pumpkins, turnips, and cymlins, and saw no good from it. One of my neighbors applied it mixed to wheat, oats and corn—no good resulted.

I concluded not to give up so soon, but bought more guano in the spring of 1851. Having no faith in the manure, I would not mix plaster with it, though I had the plaster. The guano alone was applied to corn, when about two feet high, on each side of the corn—a handful divided to 4 hills—then covered it with the plough. When the corn grew to be 4 to 5 feet high, it began to look more thrifty—and I think a marked difference in favor of the guano is visible at this time.

I have used plaster for several different years, on clover and wheat—and on oats and clover this spring—had it used while raining—but I saw no good from it at all—and in fact have never yet seen any good it did, first or last.

Being a man of no letters, must beg you to overlook all imperfections.

Perhaps I ought to have sent this to the Editor, but concluded it best to send it to you, sir.

Respectfully yours, J. BUNCH.

Our friend "T. S. P." is welcome to the full benefit of all such experiments—they amount to nothing. As an offset, however, to Mr. Bunch's experiment, we give the following extract from a letter to us from Thos. Slaughter, of Madison C. H. Va., under date of Aug. 9:—

"We have had in this region an extraordinary drought, continuing from early in May to the last of July—the consequence of which is, a very bad promise for the crop of corn, which will scarcely reach half a crop in this section of the State.

"The Wheat crop, wherever *guanoed*, very fine, the guano making a difference, in some instances, of 13 bushels to the acre, over and above that which had no guano, immediately alongside. I used my Guano, 3 tons, in combination with 2 tons Plaster, applying 250 lbs. of the mixture to an acre—the effect strikingly good, and entirely satisfactory."

Potato Rot.—The Rochester "Rural New Yorker," says that the rot in the potato crop has appeared within the last two weeks in that quarter of the State to an alarming extent.—In Vermont we hear of similar complaints.

FLORAL DEPARTMENT.

Prepared by John Feast, Florist, 279 Lexington st. for the American Farmer.

This being a fall month, much is required to have every thing in readiness for the putting in of all tender plants that don't stand the winter. Repotting should now be attended to, if not already done; have every plant that requires it, neatly tied up, and free of insects, before housing them, for if put away in that state, soon they will infest a whole house, which gives a bad appearance, and affects the bloom—the white mealy bug is quite a pest to plants, and especially on the Cactus, Fuchias, Passifloras, Cape Jasmines, and many others; by taking a small brush and thoroughly cleaning the plants, is about the best way to destroy them, and much the cleanest; the house should also be thoroughly cleansed, white washed, and painted, and the flues put in order before the plants are put away for the winter.

Camellias that were not repotted before they were inarched, should be now attended to, or give them fresh drainage—inarches, if ready, might be cut off, and kept in a shady, close frame for a time, to insure their success, as they are often lost by exposure, after being taken off the plants; they look well for several weeks, and then die off, which might be avoided with a little care—give them frequent syringings.

All the greenhouse bulbs, as Oxalises, Ixias, Babianas, Gladiolus, and others, should be looked over, and some repotted for an early bloom—three or four roots in each pot are sufficient—give them plenty of drainage, and expose them out of doors till the time of taking in the plants next month, according to the weather.

Chinese Primroses, and other seedlings, repot in small pots; also the double kinds increase from cuttings.

Japan Lillies should be sparingly watered, if in pots.

Roses intended for flowering, repot in suitable pots, and have them ready for an early bloom, also to keep up a succession of flowers through the winter.

Budding may yet be done this month, and cuttings taken off for a young stock.

All the plants intended to flower through the winter, should be particularly attended to, in repotting, &c.; some a little more tender than others, will require housing sooner, but give them plenty of air till the weather sets in cold, which is generally in October.

Chrysanthemums will require the proper sized pots for flowering; give them a good strong loamy soil, with a little leaf mould and cow manure well decomposed, with plenty of water, and not too much crowded together, and you may rely on a fine bloom, if properly managed.

Dahlias will be in fine bloom this month, and all that is required is to keep them tied up and frequently watered.

Seeds of different plants gather when ripe.

A Hint to Blacksmiths.—The cutting of bars of iron or pipes with the chisel is a laborious and tardy process. By the following mode the same end is attained more speedily, easily and neatly: Bring the iron to a white heat, and then fixing it in a vice apply the common saw, which, without being turned in the edge, or injured in any respect, will divide it as easily as if it were a carrot!

The Ruffin Premium.—The Agricultural Clubs of Talbot Co. Md. offer for premium, 10 volumes handsomely bound of the Farmers' Register, presented by Mr. Ruffin, valued at $55, "for the best set of experiments to be made in 1851, serving to show the degree of injury (if any) caused to the product and value of Indian corn by stripping off the green blades for fodder—or by cutting off the tops above the ears—or by both these operations, as usual, compared with cutting off the entire plant close to the ground at a somewhat later period, and securing the whole in stocks—and all these compared with corn left standing and entire."

For the second, third and fourth grade of experiments, one bound copy of Ruffin's Essay on Calcareous Manures to each.

Note.—Each space for the different observations shall not be less than ¼ of an acre. The measure and weight of the grain from each space shall be ascertained precisely. The quantities of other provender, its condition and value, which may be ascertained by estimate, and with such approximation to precision as the stated circumstances may admit. The date of each operation to be stated, and for each the apparent degree of maturity, or other condition of the corn.

Each experimenter shall measure his several parcels, and shall shell and measure and weigh one-half of each parcel on or about the 1st of January next, and shall shell and measure and weigh the other half on or about the 1st of May next.

In awarding the premium, the judges will have regard to all the circumstances, and decide in favor of the competitor whose experiments shall best combine a judicious plan of conduct, accurate procedure in details, full and accurate results, and also such testimony of the important facts as the circumstances will admit of being furnished.

Five competent and disinterested gentlemen will in due time be selected to act as judges. Competitors will report on or before the 20th of May next, by addressing, at Easton, Md., M. Tilghman Goldsborough, Secretary Board of Trustees of the Md. Agricultural Society for the Eastern Shore, and David Kerr, Sec'ry of Farmer's Inspecting Association of Talbot county.

The premiums are open to competition by the farmers of Maryland, and by those of Virginia, East of the Blue Ridge mountains. In illustration of one class of subjects, to wit:—Experimental investigation, recommended by Edmund Ruffin, Esq. in his lecture delivered before the Agricultural Societies of Talbot county, Md. in November last, and to test a general practice of questionable utility, and by which, if it be wrong, as it is supposed to be, the value of millions of dollars may be annually lost to the farmers of the United States.

AGRICULTURAL EXHIBITIONS FOR 1851.

The *American Institute Exhibition* will be opened to visitors at Castle Garden, New York city, on the 1st Oct. The Cattle Show in connexion with the Institute's Exhibition, will be held at Madison College, cor. 5th Avenue and 23d street, N. York, on the 15th, 16th and 17th Oct. and the Ploughing Match will take place on the line of the Harlæm railroad, 20 miles from New York, on the 8th and 9th Oct.

The Exhibition of the *Maryland Institute for the Promotion of the Mechanic Arts* opens on the 20th October, (the day before the State Agricultural Society's Show commences,) and closes on 19th Nov.

The *New York State Agricultural Society* will hold its annual Exhibition at Rochester, on the 16th, 17th, 18th and 19th of Sept. inst.

The Agricultural Association of Upper Canada, holds an Exhibition at Toronto on the 24th, 25th and 26th Sept.

The *Pennsylvania State Agricultural Society's* Exhibition will be held at Harrisburg, on the 23d, 24th and 25th Oct.

A Vermont State Agricultural Society was formed 16th June, and Hon. Frederick Holbrook elected President. A State Fair is to be held, but the time is not yet fixed.

The Michigan State Agricultural Society holds its annual Exhibition at Detroit, on 24th, 25th and 26th Sept. inst.

The Valley Agricultural Society holds an Exhibition on the 16th, 17th and 18th Oct.

Southern Central Agricultural Society.—The annual exhibition will be held 29th, 30th and 31st Oct. at Macon, Geo. Judge Garrett Andrews is to deliver the Address, and the Rt. Rev. Stephen Elliott, the annual address before the Horticultural Society, at the same time and place.

The *Charles County (Md.) Agricultural Society* have not yet announced the time of holding their Fall Show. Geo. W. Matthews, Esq. is to deliver the address. The following list of premiums are offered to competitors:

Horses and Mules.—For the best Stallion, $5; do Brood Mare, thorough bred, 5; do common breed, 3; do Colt, thorough bred, 1 to 3 years, 2; do Filly, do do, 2; do pair of Horses for general draft, 5; do Saddle Horse, 3; do Jack, 5; do pair Mules, 5; do Mule Colt, from 1 to 3 years, 2—Colts to be considered 3 years until they have completed their 4th year.

Cattle.—For best Bull, improved breed, $5; do common breed, 3; do of any breed, from 1 to 3 years, 3; best Milch Cow, improved breed, 5; do do common breed, 3; do Heifer, improved breed, 2; do do common breed, 2; do yoke of Oxen, 5; do do from 1 to 3 years, 2.

Sheep.—For best Buck, improved breed, $3; do pair of Ewes, do 3; do Buck, common breed, 2; do pair of Ewes, common breed, 2; do slaughtered Mutton, 2; do lot of Lambs, not less than 4, $2.

Hogs.—For best Boar, $2; do Sow, 2; do Sow and Pigs, not less than six, 2; do Pork Hog, 2.

Agricultural Productions.—For best hhd. Tobacco not less than 600 lbs. $5; second best do 4; third best do. 2; best field of Wheat not less than five acres, 8; best acre of Wheat, 4; second best do. 3; best acre of Oats, 3; best field of Corn not less than 5 acres, 8; best acre do. 4; second do. 3; ⅛ acre Irish Potatoes, 3; ⅛ do Turnips, 2.

Products of the Garden.—For best bushel of Irish Potatoes, $1; do Sweet do. 1; best specimen of Cabbages not less than six, 1; do lot of Beets, not less than ten, 1; do half bushel of Parsnips, 1; do do Carrots, 1; do lot of Pumpkins, not less than 6, 1; do lot of assorted Vegetables, 2.

Home Manufactures.—For best twilled Cloth, not less than 5 yards, $3; 2d best do. 2; best striped or plaid Linsey, do. 2; 2d best do. 2; best plaid Cotton, do. 2; do Cassinett, do. 2; do domestic Flannel. do. 2; 2d best do do. 2; best home-made yarn Counterpane, 2; do home-made Quilt, 4; 2d best do. 2; best lot of home-made yarn Socks, 1; do Stockings, 2; best lot of Tapestry, 4; do fancy Needlework, other than Tapestry, 2; do plain do 2.

Butter.—For the best potted Butter, not less than 5 lbs. to be potted before 1st Oct. $3; 2d best do. 2; best lot of fresh do. 2; 2d best do. 1; best home-made wheat Bread, 2; do corn do. 1; do Soap, 3; 2d best do. 2; best sample home-made Candles, not less than six, 1; do Starch, not less than 2 lbs. 1.

Poultry.—For best pair of Turkeys, male and female, $1; do Geese, do. 1; do puddle Ducks, 75c; do barn-yard Fowls, 75c.

Fruit.—For best assorted lot of Fruit, $2; best lot of Apples, not less than 1 dozen, 1.

Agricultural Implements.—For best Horse-Power and Thresher, $7; do 3-horse Plough, 2; do 2-horse do. 1; do 1-horse do. 1; do sub-soil do. 1; do hill-side do. 1; do Tobacco Cultivator, 1; do Wheat Fan, 3, Corn Sheller, 1; Horse Mill, 3.

Prince George's Agricultural Society.—The following Premiums will be offered by this Society at its Eleventh Annual Exhibition, to be held at Upper Marlboro' on the 7th and 8th October.

Horses and Mules.—For the best stud Horse, for all purposes, $5; next best, do. *Farmer;* best brood Mare, for general purposes, 5; next best, do. *Farmer;* best horse Colt, of any blood, between 1 and 2 years old, bred by a member of the Society, 2; best do between 2 and 3 years, do. 2; best Filly, of do, between 1 and 2 years, bred by do. 2; do between 1 and 2 years, do. 2; best pair of matched Horses, 2; best do bred by a member of the Society, 2; best single harness Horse, 2; best do bred by a member of the Society, 2; best saddle Horse or Mare, 2; best do bred by do. 2; best Jack, 5; do pair of Mules, 3; do Mule Colt, bred by do. 2.

Thorough bred and Common Cattle.—For the best Durham Bull, over 3 years, $5; next best, *Farmer;* best do between 2 and 3 years, 3; next best, *Farmer;* best Durham Cow, over 3 years, 5; next best, *Farmer;* do Bull, 1 and 2 years, 3; do Bull Calf, between 4 months and 1 year, 2; do Heifer, between 2 and 3 years, 3; do 1 and 2 years, 2; do Heifer Calf, 4 months and 1 year, 2; best Devonshire Bull, over 3 years, 5; next best, *Farmer;* do 2 and 3 years, 3; next best, *Farmer;* do Cow, over 3 years, 5; next best, *Farmer;* do Bull, 1 and 2 years, 3; do Bull Calf, 4 months and 1 year, 2; do Heifer, 2 and 3 years, 3; do 1 and 2 years, 2; do. 4 months and 1 year, 2; best Cow of any breed, other than Devon and Durham, 3; best yoke of working Oxen, 4; best Bull of any other breed, 1 and 2 years, 3; do Bull Calf, 4 months and 1 year, 2; do Heifer, do. 2; do 1 and 2 years, 2; do 2 and 3 years, 2; best Beef, 2; do pair of Steers, between 2 and 3 years, unbroken, 2.

Sheep.—For the best Leicester Buck, $2; next best, *Farmer;* best Southdown do. 2; next best, *Farmer;* best Buck of any other breed, 2; do Ewe, do. 2; best pair of Lambs of any breed, bred by a member of the Society, 2; best lot of live Mutton, not less than 2 in number, raised by members of the Society, 2; do specimen of slaughtered do, raised by do. 2; best Leicester Ewe, 2; do Southdown do. 2.

The Society will give premiums for any superior animal of any other improved breeds, other than those named in the aforegoing list of cattle and sheep, provided three weeks notice be given and published.

Hogs.—For the best Boar of any breed, over one year, $3; do. under 1 year, 2; best Sow of any

breed, under 1 year, 1; best litter of Pigs, 1; best barrow or spayed Sow, 1.

Agricultural Implements.—For the best display of Agricultural Implements, $10.

Agricultural Productions.—For the best acre of Wheat, $5; do Oats, 3; do Rye, 3; best 70 yards square of Corn, 5; best lot of Vegetables for table use, 5; 2d best, 3; 3d best, 2; best ⅛ acre Ruta Baga, 2; do Irish Potatoes, 2; do Sugar Beets, 1—To be accompanied by a full statement of the mode of cultivation. Every exhibitor shall be required to submit the statement of product per acre, under his own oath, or that of some one competent person deputed by him, both as to the amount of product and the manner the land was surveyed or measured.

Household Manufactures.—For the best specimen home spun Cloth, not less than 5 yds. $2; best home-made Quilt, 2; do Counterpane, 2; do yarn Stockings, half dozen pairs, 2; best specimen cotton do. 2; do domestic Wine, 2; do Bounce, 2; do Cordial, 2; do Preserves, 1; do green Pickles, 1; do yellow, 1; do brandied Fruit, 2; do Butter, not less than four pints, 2; handsomest specimen of silk or worsted Embroidery, 3; best display of manufactured goods, 3; best lot of servants' Shoes, 2; best home-made wheat Bread, 2 loaves, 2; do Pound Cake, 2; do Sponge Cake, 2; best specimen of home-made Carpeting, 2; best home-made Straw Hat, made in the family of a member of the Society, 2; 2d best, 1; best pair of corn shuck Horse Collars, 1.

Poultry.—For the best pair of Turkeys, $2; do Geese, 2; do Muscovy Ducks, 1; do Puddle do. 1; do Fowls (male and female) 1; do Capons, 2.

Tobacco.—For the best hhd. Tobacco, $12; 2d best, 10; 3d best, 8; 4th best, 5.

Fruits and Flowers.—For the best half bushel of winter Apples, $2; best peck of Winter Pears, 2; best 5 pounds of honey, 2; best varieties of Fruits, 2; best collection of Flowers in pots, 5.

Montgomery Co. Agricultural Society.—The following premiums will be awarded at the Annual Exhibition to be held at Rockville:

Best Stallion, general purposes, $10; 2d best, 5; best brood Mare and Colt at foot, 10; 2d best, 5; best Colt or Filley, 2 yrs. or under, 2.50; 2d do. 1.

Cattle.—Best yoke of Oxen, $10; 2d best, 5; best Bull, 10; 2d best, 5; best Cow, 10; 2d best, 5; best Bull Calf, not over 2 years, 2.50; best Heifer Calf, 2.50; best Ram, 5; 2d best, 2.50; best lot of Ewes not less than five, 5; 2d best, 2.50; best lot of Lambs, not less than three, 2.50; 2d best, 1.

Swine.—Best Boar, $5; 2d best, 2.50; best brood Sow, 3; if accompanied with her Pigs, 5; 2d best do. 2.50; best lot of Shoats, not less than five, 2.50.

Poultry.—Best pair of Turkeys, $1; do Geese, 1; do Chickens, 1; do Ducks, 1.

Hams.—Best Ham, $2.50; 2d best, 1.

Agricultural Implements.—For best display of by farmer, in proportion to land cultivated, $10; 2d best, 5; best Plowing, 3 horse plow, 5; 2d best, 2 do. 5; best do. with oxen, 5; 2d best, 2.50; best Wheat Drill, 5; best Reaping Machine, 5; best Ox Yoke and Bows manufactured in the county, 2.50; 2d best, 1; best Churn (166) 1.

Ladies Department.—Best Cheese, not less than 5 lbs. $2.50; 2d best, $1; best potted Butter, not less than 10 lbs. 2.50; 2d best, 1; best fresh do. not less than 5 lbs. 2.50; 2d best, 1; best Honey, not less than 10 lbs. 2.50; 2d best, 1; best home-made light Bread, 2.50; 2d best, 1; best plate of Biscuit, 1; do jar of Pickles, 1; do Preserves, 1; best hard Soap, not less than 5 lbs. 1; do soft do. not less than half gallon, 1; best display of Flowers, 5; 2d best, 2.50.

Household Fabrics.—Best piece fulled Linsey, not less than 10 yards, $2.50; do striped do. 2.50; do Flannel do. 2.50; best pair Blankets, 2.50; 2d best, 1; best piece of Carpet, not less than 10 yds. 2.50; best Hearth Rug, 1; best piece of Linen, not less than 10 yards, 2.50; do Toweling, do. 1; do table Diaper, 2.50; best silk Quilt, 2.50; do calico do. 2.50; do ornamented do. 2.50; best yarn Counterpane, 2.50; do cotton do. 1; best pair yarn Stockings, 1; do silk do. 1; do cotton do. 1; do thread do. 1; do yarn Gloves, 1; do cotton do. 1; do silk do. 1; do thread do. 1.

Domestic Fabrics.—Best piece fulled Cloth, not less than 10 yards, $2.50; do Cassinet, 2.50; do Linsey, 2.50; do Flannel, 2.50; best pair Blankets, 2.50; 2d best, 1.

Vegetables.—Best lot of Potatoes, not less than 1 bushel, $1; do Cabbages, not less than 6 heads, 1; do Pumpkins, 1; best display of Vegetables, 2.50.

Fruits.—Best lot Apples, not less than half bush. $1; do Peaches, not less than 1 peck, 1; best display of Fruit, 2.50.

SALE OF STOCK.—We have before noticed the sale of stock by Lewis G. Morris, Esq. of N. York. The following is a list of the animals sold, the names of the purchasers, and the prices paid. As before remarked, Mr. Foley, who purchased largely at the sale, was operating for Gen. Cadwallader.

Short Horns.—Cow York, 7 years old, D. Foley, Philadelphia, $110; Cow Cleopatra, 9 years old, D. Foley, do. $85; Cow Coquette, 4 years, Edward H. Smith, New Rochelle, 50; do Red Lady, 4 years, D. Foley, Phila. 175; do Eleanora, 4 years, same purchaser, 134; Heifer Miss Rolfe, 2 years, Wm. Fuller, Westchester, 105; do Fame, 18 months, D. Foley, Phila. 60; do Red Rose, 14 months, Gen. G. Hopkins, 30; do Kate, 5 do, G. G. Hubbard, Westchester, 140; do Lily, 3 do, Joel Terrel, Oswego, 80; do Beulah, 2 do, D. Foley, 55; Cow Pocahontas, 11 years, Henry Parsons, Canada West, 100; do Beauty, 6 do, Dr. A. Smith, New Rochelle, 105; do Sue, 8 do, R. Lewis, N. York, $100; do Watson, (age not given) H. Parsons, Canada West, 80; do Strawberry, (age not given) D. Foley, 75; do Bess, 6 years old, with her calf, Gen. Hopkins, 65; do Gazelle, 4 do, E. W. Thatcher, Pelham, 105; do Alarra, 3 do, John Wray, Westchester, 35; do Lady Independence, 3 do, R. Segoine, Richmond Co. 67.50; Heifer Miss Stuart, 2 do, J. Robinson, Peekskill, 60; do Harlem Maid, 2 do, D. Foley, 75; do Lady Canning, 2 do, G. G. Wilmerding, Suffolk county, 120; do Marietta, 2 do, D. Foley. 70; do Sabina, 5 do, E. Smith, New Rochelle, 77.50; do Miss Mary, 20 months old, R. Segoine, Richmond Co. 75; do Bessie, 18 do, Prof. Mapes, N. Jersey, 35; do Clara, 14 do, R. Segoine, 30; do Laura, 10 do, D. Foley, 30; do Lucy, (age not given) D. Foley, 37.50; do Helen, 3 months, Morris Ketchum, Conn. 100.

Short Horn and Ayrshire Cross.—Cow Countess, 3 years old, D. Foley, Phila. $82.50; Heifer Jeannie, 2 do. Morris Ketchum, Conn. 90; do Betty Merryman, 21 months, P. R. Paulding, Greenburgh, 60.

Dutch.—Cow Julia Edgar, (age not given) Lewis Livingston, Dutchess county, $100; Heifer Dinah, do. do, 37.50; a yoke of Oxen, 8 years, Derous S. T. Wright, Westchester county, 145.

Bulls—Crossed with Dutch.—Pontiac, 17 months old, 7, Goodwin, Kingsbridge, $70; Red Rover, 5 do, F. R. Reeves, Virginia, 105; Medley, 1 do, J. Biddle, Morris Co., N. J. 60.

Bull—Devon.—Barton, 17 months, D. Foley, $145.

Swine.—Pair of Spring Pigs, Hy. Parsons, Canada West, $37.50; do the same, 30; do Mr. Churchill, Westchester county, 30; 2 pairs do Wm. Hubbard, Boston, 50; 1 do Capt. Spencer, Westchester, 20; do T. Handeraft Burlington, N. J. 20; do Mr. Parsons, Canada West, 30; do D. Foley, 30; do A. Clements, Pa. 27.50; a Stickney Boar, Mr. Livingston, Dutchess county, 17; do D. Foley, 17; do J. B. Wilson, Wisconsin, 17; do C. Handeraft, N. J. 16; a Watson Sow, N. Brooks, Rhode Island, 17; a Stickney Suffolk Sow, 5 years, Mr. Maitland, Westchester, 22.50; a Suffolk Sow, 9 months, Mr. Hubbard. Boston, 30.

Sheep—South Downs.—Buck Lamb, 3 months, A. Clements, Phila. $30; do E. G. Faile, Westchester, 30; do N. Brooks, Rhode Island, 30; do D. Foley, 30; do D. Foley, 25.

SALE OF MR. VAIL'S STOCK.—This took place at Mr. Vail's farm, in Troy, on the 26th of June. The prices are higher than any obtained at a public sale of shorthorns within the last nine years.

Cows and Heifers.—Lily 2d, 6 years old, General Cadwallader, of Phila. $170; Lily 3d, 3 do. Henry Wells, Cayuga Co. N. Y. 135; Lily 4th, about 18 mos. old, Gen. Cadwallader, of Phila. 90; Lily 5th, calved March 19th, 1851, same purchaser, 165; Fun, 7 years old, Henry Wells, of Cayuga Co. N. Y. 235; Dahlia 5th, 2 do. Gen. Cadwallader, 75; Eunice 2d, 10 do. same purchaser, 160; Eunice 3d, 8 do. John Osborne, of Oneida Co. N. Y. 125; Wilddame 4th, 3 years, Gen. Cadwallader, 225; do 5th, calved Feb. 20th, 1851, (sick) same purchaser, 55; Daisy 3d, 7 years old, S. P. Chapman, Madison Co. N. Y. 230; do 5th, about 20 mos. old, Gen. Cadwallader, 150; Fillpail 5th, do. same purchaser, 95; Victoria 4th, 4 years, Henry Wells, of Cayuga Co. N. Y. 90; Rosette 2d, 4 do. Gen. Cadwallader, 175; do 3d, about 20 months old, Wm. Osborne, of Oneida Co. N. Y. 80; do 4th, about 10 do. Gen. Cadwallader, 105; Yellowskin, 2 years, same purchaser, 110; Willy, 14 years, same purchaser, 90; Profitable 2d, about 10 mos. old, Hy. Wells, of Cayuga, N. Y. 125; Victoria 5th, about 2 months, Gen. Cadwallader, 75.

Bulls.—Beppo 3d, calved Sept. 2d, 1848, Thomas Richmond, of Gananque, Canada West, $150; Leopold, calved Oct. 6th, 1849, Cameron, near Kingston, do. 50; Grand Duke, calved Feb. 24th, 1850, John Osborne, of Oneida, N. Y. 95; Falcon, calved Sept. 23d, 1850, Thomas Richmond, of Gananque, Canada West, 90; Marquis, calved Aug. 1849, to same, 60; White Prince, calved April 12th, 1851, F. Yates, 55.

Heifer Calves.—Beauty, about 2 months old, Wm. Osborne, of Oneida, N. Y. $90; Red Lady, do. Gen. Cadwallader, 60; Fashion, about 6 weeks old, (not on catalogue) to same, 30; Fillpail 6th, a yearling heifer, (not on catalogue) Wilson, of N. Y. 90.

At private sale and not on catalogue, Lady Barrington 5th, 2 years and 10 months old, got by premium bull Meteor, out of Imported Lady Barrington 3d, Aaron Clement, for T. P. Remington, of Philadelphia, $350; Hilpa, 4th, roan heifer calf, dropped April 9th, 1851, being 2 months and 17 days old, got by Duke of Wellington, out of imported Hilpa, S. P. Chapman, Clockville, Madison county, N. Y. 300.

It will be seen by reference to the above statement, that there were 19 cows and heifers sold, which brought $3,010, averaging about $160 each; seven heifer calves brought 640, averaging 91; seven bulls and bull calves, 520, averaging 74 each—in all, 33 animals, including two heifers at private sale, brought $4,170; the whole lot, old and young, averaging $126.

☞STEWART'S PATENT STUMP PULLER.☜

It gives us great pleasure to announce, that this powerful machine will be *Exhibited at the Fair of the Maryland State Agricultural Society, next month.* From reliable accounts of its performance at, and near Boston, there can be no question but that it is one of the most effective machines ever invented by human ingenuity. Its leverage is immense, as will be very readily conceived, when we state, that with a single yoke of cattle, it can bring a power to bear equal to eight hundred tons purchase. It will be put into practical operation during the exhibition, and thus afford visitors an opportunity of witnessing its wonderful capacity for raising stumps, however ponderous or deep rooted they may be.

We shall give a *cut* of the machine, and full accounts of its performance, in our next. For the present we will merely mention, that it requires but about five minutes to draw out a large stump, and that when they may be conveniently located, it can extract three small ones at one operation. Besides uprooting stumps, it can move buildings and massive rocks.

☞We had in type, a description, with a drawing of a cheap Barn, which we have reason to believe, will suit the convenience and the *pocket* of a large number of farmers—we will endeavor to publish it next month.

DECOMPOSITION OF TAN.—A subscriber at Orange C. H. Virginia, asks us how he should manage spent tan to render it useful as manure. Tan is, at all times, slow of decomposition; but it may be reduced either by mixing it with lime, or with stable and barn yard manure. If by the first, on every cart load of tan he should spread five bushels of lime, form his heap in this proportion, cover the top with a few inches of earth, and let it lie twelve months, then shovel it over, when it will be sufficiently rotted to apply to his lands. If by stable and barn yard manure, he should form a compost, layer and layer about, 2 parts tan, and 1 part manure, cover the top with earth, and let it lie a few months, occasionally turning it over to let in the atmosphere and excite fermentation. In either case, a bushel or two of salt and plaster would be of service if added to every 20 loads of the compost. When reduced, tan is an excellent manure. If obtainable, *unslaked* ashes, would answer better than lime, used in about the same proportion.

New Castle (Del.) Agricultural Club.—We had a desire to publish the interesting discussion of this Club, held at the residence of one of its members, Mr. Clark, on the 31st July—but our pages are too much crowded this month to permit it—We took a short trip in July to this part of Delaware, and in August to Washington and Frederick Counties, of this state, and to some of the counties of Virginia, to the west of Maryland, and intended making some notes thereon, but must defer them for the present.

HIGHLY IMPROVED ESTATES AND VALUABLE TIMBER LAND, On Lower Jamer River, For Sale.

THE undersigned, prevented by engagements requiring his undivided attention elsewhere, from residing on his estate, will sell, on the premises, publicly, at 11 o'clock, A. M., on Tuesday, the 23d day of September next, without regard to weather, that large and valuable body of highly improved arable and heavily timbered LAND, extending up the north side of James River, from the Chickahominy, a distance of more than 5 miles, in the County of Charles City, Virginia, well known under the general designation of

"SANDY POINT."

This estate lies 33 miles below Petersburg, 45 miles below Richmond, and about 65 miles above Norfolk, in what is justly considered the finest and most extensive grain growing region of Virginia, and as healthy as any on our rivers. Spring and well water abundant and excellent. The number of acres is upwards of

FOUR THOUSAND,

Of unsurpassed natural quality, of which more than 2000 acres have been thrice limed, and are now in a high and successful state of cultivation, upon the five field rotation; and more than 1000 acres well set in clover. The balance, chiefly in wood and timber, embracing some of the best timbered land in Eastern Virginia, convenient to good navigation. Marl abounds in the river, and stone lime is supplied at 6¼ cents per bushel.

The subdivisions will be nearly as follows, of which surveys and maps will be exhibited:

[No. 1.]

"UPPER QUARTER,"

841 *ACRES*,

560 improved, 281 principally in wood and timber. Buildings—a small frame-dwelling, kitchen and laundry, smoke-house, negro houses, &c. Barn with sheds and stationary horse power and shelters.

[No. 2]

"UPPER TEDDINGTON,"

THE FAMILY RESIDENCE,

797 *ACRES*,

540 improved, 257 principally in wood and timber. Buildings—a commodious wooden dwelling, large two storied kitchen and laundry, ice-house, new and commodious stable and carriage house, store house, shops, servants' houses, and every other convenient outhouse usually on such farms. Also, a new barn, part wood and part brick, with four floors, 80 by 38, and a wing 30 by 50, for bone, plaster, saw and grist mill. In the barn are two new 36 inch drums, revolving rakes, fans, seives, and every other appurtenance for threshing and winnowing wheat, shelling and fanning corn, grinding and sawing; all efficiently driven by a 16 horse-power stationary engine, in complete order and condition. The orchards are large and stocked with fruit of every variety, of the finest quality.

[No. 3.]

"LOWER TEDDINGTON,"

716 *ACRES*,

564 improved, 152 principally in wood and timber. Buildings—a new framed dwelling with 4 rooms and a passage, negro houses, a large and well arranged barn, with stationary horse-power and shelter, two large stables for horses and oxen, extensive hay house, and well constructed buildings for the protection of wagons, carts, implements, &c.

[No. 4.]

"NECK,"

707 *ACRES*,

537 improved, 171 principally in wood and timber, exclusive of more than 120 acres of meadow or marl land, well located and reclaimable at small expense.

A valuable winter fishery belongs to this farm.—Buildings—a small new frame dwelling, smokehouse, negro houses, stable and large barn, with stationary horse power and shelter.

Each division has a good landing, at which wharves can be erected cheaply and conveniently. To "Upper Teddington," within 100 feet of the barn, belongs a new, commodious and substantial wharf, adapted to any sized vessel. Steamers pass twice a day, and sometimes oftener, from Richmond, Petersburg, Norfolk, Baltimore and Philadelphia.

[No. 5.]

1200 ACRES OF TIMBERED LAND,

considered the most valuable in this part of Virginia, lying on and near navigation, which will be divided in parcels of 100 acres or more.

Also, all my Stock of every description consisting of

164 HEAD OF SUPERIOR IMPROVED CATTLE,

of the Devon, Durham and Ayrshire crosses. Among them one fine full-blooded, and one half-blood Ayrshire bull; 210 sheep of the stock of Mr. Reybold, of Delaware; hogs; 39 mules and 3 horses—together with a large and valuable collection of implements of every variety, &c., &c.

Before the day of sale, more than 425 acres of the clover will be fallowed, and purchasers will have time and the privilege of extending the preparation for seeding to suit themselves.

Full possession of the Farms given on the 1st of January next; of the Timbered Lands immediately.

Mr. Nicol, residing at "Sandy Point," is prepared to show the property in my absence, and a particular examination is invited before the sale.

A portion of the SLAVES, in families only, will be sold to the purchasers of the farms, if desired.

TERMS—For the Farms, one fifth cash, the balance in 5 equal instalments, with interest payable annually upon all the instalments. For the Timber Land, one-fourth cash, the balance in three equal annual instalments, interest payable annually, as above. For the perishable property, a credit of 12 months upon all sums over $100. Approved personal security upon all credit payments and deeds upon lands, additional.

☞ Letters of inquiry, addressed to Petersburg, will be promptly answered.

ROBERT B. BOLLING.

Petersburg, July 8th, 1851. Aug-1-2t

CHICKERING'S PIANOS.

THE Subscriber is *Sole Agent in Baltimore*, for the sale of CHICKERING'S CELEBRATED IRON FRAMED GRAND AND SQUARE PIANO FORTES, and is constantly receiving supplies from the factory in Boston, which are sold at the same prices as charged by Mr. Chickering.

Chickering's Pianos are unquestionably the best Instruments manufactured in the United States. In regard to superior quality of tone, touch, durability, and all the essential qualities of a Piano, they are admitted by the most eminent Pianists to be equal to Erard's, of Paris, or Broadwood's, of London.—Although there are several factories in Boston and New York of high reputation, Mr. Chickering undoubtedly stands at the head, possessing eminent talent, skill, untiring industry and experience of some 35 years as a manufacturer of pianos, with abundant means to enable him to carry out his plans in producing the very best instruments.

Orders from the country, entrusted to the subscriber, either for Pianos, Music, or any article in his line of business, will be faithfully executed. F. D. BENTEEN,

jan1 6t* 181 Baltimore street.

SELLING OFF TO CLOSE!

A STOCK OF

AGRICULTURAL IMPLEMENTS

Amounting to $10,000,

TO BE SOLD AT GREAT SACRIFICE.

THE undersigned having determined to change their entire business, would call the attention of Farmers, Gardeners and Dealers, to their extensive stock of Agricultural Implements, which they will dispose of on the most reasonable terms for cash, with a desire of a speedy close.

The Implements consist, in part, of Horse Powers and Thrashers; Wheat Fans, a superior article—took the First Premium at the late annual Fair; Straw Cutters, various kinds and sizes, consisting of Cylindrical Box, which is too well known for us to speak further—the Raw Hide Repeating, or the Boston Box, suitable for cutting straw or hay; Corn Shellers of all kinds; Ploughs of every kind, suited for the different varieties of soil. Our stock of the latter is very large, numbering upwards of 600, which we will close out at much reduced rates. Also, Churns of an endless variety, with Shovels Forks, Cradles, Briar Hooks, Apple Pearers, Sausage Cutters and Fillers, together with a general assortment of articles suited for the farmer. Home Seeds from the Shakers' Gardens, N. York, celebrated for their freshness, &c.

We will also dispose of an elegant STEAM ENGINE, Turning Lathes, Circular Saws, Drilling Machines—together with an elegant Brick Shop, making everything complete for manufacturing purposes. The agricultural community will please give us a call before purchasing elsewhere.

No. 97 NORTH PACA ST., near Franklin.

For the accommodation of those having water communication with the city, we will have an office on BALDERSTON STREET, near Light, where we will be happy to receive all orders, and promise to give punctual attention.

mar 1 HAMBLETON & DIDIER.

BENJAMIN WILLIAMS,

Commission Merchant and Dealer in Wool,

No. 126 Lombard street, between Charles and Light street, BALTIMORE.

CASH and the highest market price paid for all descriptions of WOOL and DRIED SHEEP SKINS.

Wool and Country Produce received and sold on commission. Refer to—

Messrs. Duvall, Keighler & Dorsey,
" Duvall, Rogers & Co.
" Wm. Woodward & Co.
" Thos. Whitridge & Co. } BALTIMORE.
" William Cooke & Sons,
" Wadd & Brothers,
Mr. George William,
Messrs. J. D. & M. Williams, } BOSTON.
Mr. John Williams,

Je. 1-6t*

A. E. WARNER, No. 10 N. Gay st.

MANUFACTURER OF SILVER WARE, FINE GOLD JEWELRY, and importer of BEST SILVER WARE, FANCY ARTICLES, &c. would respectfully invite the attention of those in want of any of the above articles, that he keeps always on hand, and makes to order, every variety of Silver Ware, fine Gold Jewelry, and best quality Silver Plated Ware, which he will sell on the most accommodating terms. Feb. 1-tf

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LIME.

THE subscribers are prepared to furnish Building and Agricultural Lime at the depot on the Back Basin, corner of Eden and Lancaster-sts., which they will warrant to give satisfaction, it being burnt from pure Alum Lime Stone, equal to any found in the United States. Orders may be left with WILLIAM ROBINSON, No. 15 Hollingsworth-street, near Pratt.

tf **PELL & ROBINSON, City Block.**

FOR SALE.

20 BUCK LAMBS of the COTSWOLD or NEW OXFORDSHIRE BREED, deliverable in Baltimore after 1st August, prox.

For several years past, great care has been given by the subscriber to the selection of his breeding ewes, part of which, and the Rams, have been selected from the celebrated flock of Clayton B. Reybold, Esq. of Delaware. Price $15 to $20, according to choice For further particulars enquire of *S. Sands*, editor American Farmer, or HENRY CARROLL,

may 1-5t* Westerman's Mills P. O. Balt. Co. Md.

Full Bred Cotswold Bucks For Sale.

20 FULL BRED COTSWOLD BUCKS, 2 years old, bred from Col. Ware's best stock, for sale—price from $30 to $50, according to selection, put up in crates ready for transportation. Application to be made to CHAS. CARROLL, Daughoregan Manor, near Ellicott's Mills, Md.

Or to Sam'l Sands, at the office of the American Farmer.

☞ The North Carolina Star, at Raleigh, and the Lancaster, Pa. Intelligencer, will publish the above four times, and send bills as above. May 1-5t

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AGENCY FOR THE PURCHASE AND SALE OF IMPROVED BREEDS OF ANIMALS.—Stock Cattle of the different breeds, Sheep, Swine, Poultry, &c. purchased to order and carefully shipped to any part of the United States—for which a reasonable commission will be charged. The following are now on the list and for sale, viz:

Thorough bred Short Horns and Grade Cattle
Do do Alderney do do
Do do Ayrshire
Do do Devons do do
Do do South Down Sheep
Do do Oxfordshire do
Do do Leicester do

Swine and Poultry of different breeds.

All letters, post paid, will be promptly attended to. Address AARON CLEMENT,

Cedar st., above 9th st., Philadelphia.

Philadelphia, July 9th, 1851. Aug. 1

New Oxfordshire Bucks For Sale.

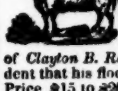
THE subscriber has a number of yearling and two year old BUCKS, which he will sell any time when called for, and has no hesitation in saying this breed of Sheep are superior to all others for large carcass, heavy fleece, early maturity, constitution; and defies all competition with other breeds for profit. This flock (which has been bred from some of the best ever imported) is so well known they need no further description than to say, that the sire clipped 18 lbs. of washed wool, and weighed 361 lbs. alive. Gentlemen are invited to call and see for themselves, or communicate by mail. Direct to

CLAYTON B. REYBOLD, Delaware City, Del.

Orders received for the above by Mr. Sands, at the office of the American Farmer, who will attend to their shipment.

May 1-5t

New Oxfordshire Sheep.



THE subscriber will have for sale, deliverable in August and September next, about 25 Lambs, of the *New Oxfordshire*, or Cotswold breed of Sheep; the subscriber in person selected his breeders from the flock of *Clayton B. Reybold*, Esq. at a high figure, and feels confident that his flock is unsurpassed by any other in Maryland. Price $15 to $20. Enquire of *Mr. Sands*, at the office of the "Farmer," who will receive orders for them, or to

WILLIAM JESSUP,

near Cockeysville, Balt. Co., Md.

A Card to Farmers.

THE subscriber would respectfully inform Farmers and others interested, that he is now manufacturing a "FERTILIZING COMPOUND" of very superior quality, (the base being *Bones* dissolved in *Sulphuric Acid*, with the addition of Soluble Salts of *Ammonia*, *Potash*, *Soda*, *Magnesia*, &c.) and offers it for sale in quantities to suit purchasers, at $3 per barrel of 300 lbs., and warranted of great fertilizing power and durability.

WM. TREGO, Manufacturing Chemist,

Office N. W. cor. Baltimore and North sts.

aug. 1-4t* Factory on Hughes st. S. side of Basin.

A. LONGETT,
COMMISSION MERCHANT,
Office at the State Agricultural Warehouse,
25 *CLIFF STREET,*
NEW YORK.

☞ THE WORKING FARMER, a monthly publication, devoted to Agriculture, &c. &c.; edited by Prof. J. J. Mapes; published by A. Longett, 25 Cliff street. jy. 1-3t

JOHN ROWLETT,
PRODUCE AND GENERAL
COMMISSION MERCHANT,
City Wharf, Petersburg, Va.

Farmers supplied with *Peruvian Government GUANO, Thomaston Lime, Lubec Plaster,* and *Agricultural Implements* of every kind, always at the lowest market prices. Consignments of Virginia and North Carolina Agricultural Products solicited. Commission on sales of Wheat one cent per bush.

Mr. D. A. Weisiger or F. C. Stainback will always be found during my absence from my office on City Wharf, prepared to attend to business. jy. 1

J. T. WATKINS,
FEATHER BEDS,
CURL-HAIR MATTRESSES,
FURNITURE AND VARIETY STORE, &c.
No. 47 South street,
Between Lombard and Pratt street,
Ap. 1-1yr *BALTIMORE.*

Peruvian Guano, versus Kentish's Prepared Guano.

TESTIMONY of Dr. J. H. Bayne, of Prince George's Co. Md., a well known and intelligent agriculturist. Extract of a letter from E. B. Addison, Alexandria, Va.

"Dr. J. H. Bayne authorizes me to say, that in the spring of 1850, he planted his potatoes, side by side, as follows: on a given number of rows he used Poudrette, on a like number, African Guano, Peruvian Guano, and your Prepared Salts. The first two were distanced, but with the Peruvian and your Prepared Guano it was *"neck and neck."* He pronounced yours, *"an excellent article and esteems it highly."*

Norfolk, Va., 3d July, 1850.

Sir:—I have used your Prepared Guano on peas and potatoes, with great success, and I give it the preference to any manure I have ever employed. E. M. MARCHANT.

To Mr. C. A. Kentish.

I would also refer to the following, amongst hundreds of other gentlemen, as to the superiority of my Prepared Guano.

Hon. Wm. C. Bradley, Westminster, Vt.

W. O. Platt, Editor of the Vermont Phœnix, Brattleboro' Vt.

Church Miller, Brattleboro', Vt., on Corn.

Seth Perkins, near the Court-house, Fairfax Co. Va., on Corn.

POTATOE ROT.

White Plains, Westchester Co., N. Y.

I have used "Kentish's Prepared Guano" this season on potatoes. My crop was large and all sound. Where I did not use it, the potatoes were all rotten and worthless. My neighbors also, who have not used this Fertilizer, have not raised a saleable potatoe this year. I consider it a preventive of Rot! G. PREAUT.

Sept. 28, 1850.

Price, $20 per ton, for sale by CHAS. A. KENTISH,
je. 1-6t 40 Peck Slip, N. Y. City.

GUANO---GUANO.

THE subscribers have now in store supplies of Peruvian and Patagonian GUANO, which they will sell in lots to suit at the very lowest market rates.

They are expecting further arrivals of Peruvian about 1st August, and also about 1st September, and are now prepared to contract with farmers for their fall supplies, deliverable from ship at those periods—thus saving the purchaser a heavy charge for transportation.

Ground Plaster in barrels.
Ground Bone, pure.
Clover and Timothy Seed.
Kettlewell's Renovator.
Reynolds' Corn Shellers.
Fish, Bacon, Tar and Salt.

jy. 1 W. WHITELOCK & CO. cor. Gay and High sts.

AGRICULTURAL IMPLEMENT DEPOT
And Produce Store,
No. 95 LIGHT STREET WHARF,

And in front of the small wharf where the Hugh Jenkins, Cambridge and other steamboats start from daily.

TO facilitate and render this business more convenient for his customers and himself, the subscriber has taken a convenient and commodious Warehouse in Baltimore, as a depot and sale place for all the various Agricultural Implements manufactured at his shops in Carroll County; also, to sell the products of his Farms, Mill and Foundry.

The following articles of his own manufacture and produce, he will endeavor constantly to have there for sale, viz:

HORSE POWERS { Endless Chain or Tread, for 1, 2 or 3 horses. Levers or 2, 4 or 6 horses.

THRESHERS { With Seperator and Fan attached. With Seperator only. Without Seperator.

Wheat Fans, Corn and Cob Crushers, Corn Shellers of various kinds, (very superior;) Cutters for Hay, Straw and Fodder, (Richardson's patent;) Cornstalk Cutter and Grinder, (a new and the best article now in use;) Horse Rakes; Smut and Garlic Rubbers, (which is unequalled for its simplicity of structure and thorough operation on Wheat or Buckwheat;) Clover Seed Hullers; Ploughs of several kinds, but only such as are known to do the best work; Harrows and Cultivators, and various smaller Implements for Garden and Field use.

Mumma's patent CONCAVE CYLINDER CORN SHELLERS, either for power or hand. It received at the late Fair in Balt. the first premium over all others. The peculiar structure of the Cylinder, allows it to take the ear grains off the cob cleaner than any other machine, also separating the shelled corn and cobs. Also the Vertical Cylinder Corn Shellers, (all cast Iron and of great strength) which will shell 100 bushels per hour.

The subscriber would now respectfully call prompt attention to the securing for the ensuing harvest, (which promises to be very heavy) a Horse Power and Threshing Machine, either with or without Cleaner, which for *simplicity* of arrangement, *superior* structure and materials, and *cheapness* of price, have never been equalled in this market.

N. B. Address me in Baltimore, or at my residence, New Windsor, Carroll Co., Md. jy 1 JAS. C. ATLEE.

4000 TONS PERUVIAN GOVERNMENT GUANO on hand, and to arrive.—500 tons PATAGONIAN—for sale by S. FENBY & BRO.
Corner of Gay and Pratt streets, Baltimore.

S. Fenby & Bro. are now prepared to make contracts for further delivery for Fall seeding, and having arranged for their supply of Guano arriving early in the season, purchasers can rely on not being disappointed. A large amount of Guano intended for the Fall crop will not arrive in the United States until late in the autumn. jy-1.

LIME—LIME.

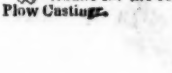
THE undersigned having purchased of E. J. Cooper the most extensive Lime Burning Establishment in the State, is now prepared to supply Agricultural and Building LIME, of superior quality, to farmers and others, on accommodating terms, from his Yard, at the *City Block,* or delivered at the several landings on the Chesapeake Bay and its tributaries, and pledges himself by strict attention and punctuality, and a determination to do justice, to merit a liberal share of patronage. Any orders addressed to him through the Baltimore Post Office, or left with C. W. Burgess & Co., No. 60 South street, one door above Pratt, will be promptly attended to.

Feb. 1-1y* JAMES L. SUTTON.

BONE-DUST AND POUDRETTE ESTABLISHMENT.
On Harris' Creek, at Canton, Baltimore.

THOMAS BAYNES, continues the manufacture of *POUDRETTE,* and is prepared to supply any orders for the same—The article manufactured by him, will be found probably more valuable than any made in the Eastern cities. His *BONE-DUST* weighs from 55 to 60 lbs. to the bushel, and is as fine as any article sold in this market. Poudrette, $1.12 per barrel. Persons sending their carts or wagons to the factory, can obtain the Poudrette at 20 cents per bushel.

Orders left with S. Sands, at the office of the American Farmer, will be attended to.



A. G. MOTT.
AGRICULTURAL IMPLEMENT MANUFACTURER,
No. 38 *Eutaw street,* near the Belair Market, Baltimore. Plows, Cultivators, Harrows, Wheat Fans, Straw Cutters, Grain Cradles, and all of the best and most approved Agricultural Implements in use.

☞ Agent for the celebrated N. York Wiley and Empire Plow Castings. mar 1

Fruit and Ornamental Trees For Sale.

50,000 PEACH, of one and two year's growth from the bud. 40,000 APPLE—5,000 CHERRIES—5,000 DWARF PEARS—each containing all the most esteemed varieties, and of large size. Also, Quinces, Plums, Nectarines, Apricots, Almonds, Grapes, Raspberries, Gooseberries, Currants, Strawberries, &c., &c.

50,000 Silver and Ash Leaved Maple Seedlings of one year's growth.—50 000 Apple Seedlings.

The above will be sold in large or small quantities on the most reasonable terms. Persons residing at the South and West, should send their orders early, so that the trees could be forwarded by the last of October, or first of November.

Catalogues with prices annexed will be sent to all applicants. ISAAC PULLEN,

Aug. 1-3t* Hightstown, Mercer Co. New Jersey. Aug 1, '51.

A CARD.

GEO. W. MORLING would most respectfully inform his friends and the public generally, that he has taken Store 89 BALTIMORE ST., corner of HANOVER, where he intends keeping a general assortment of fashionable Ready Made CLOTHING.

Wm. S. Hinds, a gentleman of much practical experience, will attend to the execution of the mechanical department, and will make up to order in the best and most fashionable style, every description of Gentlemen's Clothing.

Those of my friends and the public who may favor me with their business, are assured that every effort will be made to give them satisfaction. Always on hand a general assortment of CLOTHS, CASSIMERES and VESTINGS. aul

BONE DUST.

THE subscriber will furnish ground Bones, warranted free from every mixture, *or the entire quantity forfeited*, at 55 cents per bushel. Also a second quality article, composed in part of Bones, and in part of Flesh of Animals, being a quick and powerful fertilizer, at 35 cents per bushel.—Col. W. W. W. Bowie, the well known "Patuxent Planter," who receives his supply of bones from my Factory, says that the "bone dust at 55 cts. per bushel, was the best I ever saw."

Orders may be left at the "American Farmer" office, directed to me, or at the Factory below the Race Course, Canton, near Baltimore, will meet prompt attention.

None of my manufactured Bone Dust is sold except at my Factory. JOSHUA HORNER.

My second quality is a new article of manure; I commenced making it from reading that portion of Dr. Higgins' report, in which he advises farmers not to buy made up or compound manures, but to make their own, viz: to procure the offal of the slaughter houses, &c. and boil the same and mix it with their barn-yard manure—The article I offer to the public is made from the flesh of animals boiled, mixed with plaster and charcoal, to preserve the ammonia—lime, soda, and ashes, are also used in small proportions, in the process of manufacture—it is put up in pie, under cover, for 6 to 9 months, the whole mass is then mixed with an equal quantity of ground bones—There is no grand secret in this preparation—it is a substantial, quick and powerful manure, combining the durability of bones with the immediate action of guano, and hardly second to the latter, for insuring an immediate return for the investment. J. H.

I furnish to my customers, when bags are not sent, 2 bushel bags, at 6 cents each. aug.1-6t*

GROUND BONE.

THE subscribers have commenced grinding, and will keep constantly on hand, Ground Bone of superior quality, being all fresh, gathered daily, from the various Market and Slaughter houses of this city—(an exclusive privilege of our own,) and warranted free from Chemical, or any other process, or impurity, which has a tendency to diminish their Fertilizing qualities. Orders left with Messrs. Geo. C. Collins & Denson, 83 Light-st. Wharf, or at the Factory, opposite the outer Depot of the Baltimore and Ohio Rail Road, will meet with prompt attention.

P. S. Samples at the office of the American Farmer.

COLLINS & BULLOCK,
Glue and Neats-foot Oil Manufacturers,
jy. 1-4t* Columbia street.

Leached Ashes,

WARRANTED OF BEST QUALITY. The unleached Ashes selected with great care, and leached without any mixture except lime. Sold at less cost than any others in the market of equal quality.

The best references can be given if required. Apply to GRISCOM & BURROUGHS,
Aug. 1-2t* City Block, Fell's Point.

GUANO.

500 TONS PERUVIAN GUANO.
150 do Patagonian do
100 do 2d quality Patagonian do.

The attention of Farmers and Planters is respectfully directed to the stock of GUANO, which we have in store and are now receiving by direct importations.

Our Guano is warranted to be of the very best quality, weighed and inspected by the State Inspector, and the analysis of the various cargoes which we offer for sale, prepared by an eminent chemist of this city, can always be seen at our warehouse.

Having an ample stock *on hand*, farmers need fear no disappointment in being supplied, if they forward their orders in season. Every attention will be paid to orders received per mail, and our prices and terms will be as liberal as any other house in the trade. P. MALCOM & CO.

Flour, Grain and Guano Warehouses,
Corner Bowly's wharf and Wood st, Baltimore, Md.
☞ Ground Plaster in bbls., and Bone Dust. aug. 1-3t

Seed Wheat.

THE subscribers will receive in a short time several varieties of White and Red Wheat from the *Mediterranean*, to which they call the attention of Farmers wishing to replenish that description of wheat.

They will also keep an assortment of SEED WHEAT and RYE, ORCHARD and HERDS GRASS, CLOVER and TIMOTHY SEED. T. W. LEVERING & SON,
No. 113 Pratt street wharf.

Who also have their fall supply of Peruvian and Patagonian GUANO, warranted equal to any in the city. Persons wishing to engage to be received from on board ship in September, can do so by early application. aug. 1

C. H. DRURY, *Hollingsworth street corner of Pratt—Head of the Basin*—having completed his establishment with Foundry connected, for the making his own Castings, is prepared to furnish all varieties of *AGRICULTURAL IMPLEMENTS* and *CASTINGS*, made to pattern of the best material.

The following is a list of PLOWS kept constantly on hand: Davis, of the different numbers, for wrought and cast shears, S. & M., Chenoweth, Wiley, 2 and 3 furrow, No. 0, Hill side, No. 1 and 3 Connecticut—Beach Improved or Posey Plow, with common Davis cast shear—Self-sharpener or wrought shear—Corn Cultivators, plain and expanding—Tobacco do.—Wheat Fans—Corn shellers with double hopper—Old Vertical and Virginia sheller—Harrows—superior Pennsylvania made Grain Cradles—Revolving Horse Rakes—Cylindrical straw Cutters, &c. &c. Horse Power *GRIST MILLS*, a very useful and saving article, and coming into general use. *HORSE POWER AND THRESHING MACHINES*, of these I need not say any thing, as wherever they have been in use any time, they are preferred to all others.

C. H. D. will this year make a smaller size Power & Thresher, (price of Power, $100, Thresher, $50, Band, $10, or when taken together, complete, $150 cash.) Persons in want of Implements made of the best material, and put together in the strongest and best manner to answer the purpose for which they are intended, are invited to call on the subscriber. jel

AGRICULTURAL IMPLEMENTS.—LABOR SAVING MACHINERY.—*GEORGE PAGE*, Machinist & Manufacturer, Baltimore st. West of Schroeder st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $200, and each simple, strong and powerful. His *Horse Power & Thrashing Machine*, he is prepared to supply at the low price of $125 complete; the Thrashing Machines without the horse power, according to size, at $30, 40, 65 and $75; Improved Seed and Corn Planter; Portable Tobacco Press; Portable Grist Mills complete, $165

JAMES BAYNES, Wool Dealer,

Warehouse No. 105 *Lombard st. near Calvert, Balto.*

IS prepared at all times to give a fair market price for WOOL of all descriptions. He would recommend to farmers to be more particular in washing their Wool, and in getting it in good order before bringing it to market, to ensure them a fair price. The demand is good, and the probability is, that it will continue so the coming season. Those having wool to dispose of, are invited to give him a call before disposing of their fleeces. Any information as to putting it up for market, &c. will be freely given.

References—B. Deford & Co., and Wethered Brothers, Baltimore—Jas. Mott & Co., and Houston & Robinson, Philadelphia. Ap. 1-1yr

C. B. ROGERS'
Seed and Agricultural
WAREHOUSE,
No. 29 Market st. Philadelphia,

HAS constantly on hand and is manufacturing all the most approved Implements of Agriculture. Dealer in Imported and American Grass and Garden SEEDS, of his own raising. Fruit and Ornamental Shade TREES.

Also, Guano, Poudrette, Bone Dust, Native Phosphate of Lime, Soda, Salt, Chemical Residuums, and the most approved Chemical *FERTILIZERS.*

In addition to the great variety kept in Agricultural stores, he has a number of new and valuable articles, he is the inventor and the only manufacturer of—among which is Rogers' Cast-steel extending point Self sharpening PLOWS, which is yet unequalled; twelve different kinds of CULTIVATORS, adapted to every different kind of cultivation and seeding, which only wants to be seen to be appreciated; Revolving Clover Seed *COLLECTORS*; improved horse and hand power Threshers, Planters and Corn Shellers. All of which will be sold on the lowest terms, by

sept. 1-tf C. B. ROGERS, No. 29 Market street.

WANTED within one, two, three, or four months at furthest, an honest, industrious YOUNG MAN, acquainted with the Dairy Business; that is, with the management of Milch Cows and selling Milk in market. For such an one, I will give one hundred and eighty dollars a year, payable monthly, and will board the same at my own house, free of expense. I will also give the same to a good GARDENER—one that is acquainted with vegetables for market. No one need be afraid of sickness on coming to Memphis; I have 25 in family, and have not had any sickness in five years. I do not believe there is a healthier place in the United States.

B. R. THOMAS.
Memphis, Tenn., August 3d, 1851. sept. 1-3t*

WILLIAM HARRIS, GUN, RIFLE AND PISTOL MANUFACTURER, *No.* 65 *South st.* Baltimore, Keeps constantly on hand a large assortment of Bird and Ducking Guns, (double and single barrelled.) *All Guns warranted to shoot correctly* Also, Pistols of every style and finish, such as Revolvers, Self-cocking Rifle Barrel. Rifles of very superior quality at reduced prices. My stock comprises every article in the sportsman's line. Diamond grain Powder; Dupont's and Beatty's Powder; Revolving Pistol Percussion Caps; Military Percussion Caps, for muskets and U. S. pistols. Guns Stocked and Repairing done with neatness and despatch. Persons desiring to purchase any article in the above line, would do well to give me a call. sept. 1-6t

Superior Devon Stock For Sale.

THE very fine Devon BULL, Springfield, 3 years old, which took the 1st prize at the State Show in 1850; he is of Mr. Patterson's stock; nothing more is necessary to be said of him—price $200.

Also, Effie, Devon COW, 5 to 6 years old, which also took the 1st prize at the same Show—price $50. She is now in calf.

Also, a Devon COW, same age—price $50—and a BULL CALF of same breed, aged 2 months, for $50.

HOLSTEIN—Also, a fine COW, half Holstein and German breed, out of pure imported stock—is a good milker,—the owner coming to town has no further use for her—price $50.

Also, a BOAR, 12 mos. old, a cross of the Chester on the no-bone breed—$15; and a lot of fine CHICKENS, some fancy breeds, cheap. Apply at the Farmer office, to Mr. S Sands. Also, Shanghai Fowls. sept. 1 1t

Animal Charcoal, &c.

PULVERIZED Animal Charcoal, in bbls., a good substitute for Bone Dust, at $2 per bbl.

Pulverized Bituminous COAL, at $1 50 per bbl.

POUDRETTE, at $1.25 and $1.75 per bbl. For sale in lots to suit purchasers, by WILLIAM CHILD,
sept. 1-* No. 78 South street, Bowly's wharf.

To Farmers.

GARDEN AND GRASS SEEDS—
100 bushels extra Early Peas.
20 " Turnip Seed.
20 " Lucern Clover.
500 " Orchard Grass, new crop.
500 " Timothy Seed, "
2000 " Herds Grass, "

All of which will be sold at the lowest market price by
C. B. ROGERS, Seed and Agricultural
sept. 1-2t Warehouse, No. 29 Market st. Philadelphia.

STATE AGRICULTURAL WAREHOUSE
G. H. BARR,
No. 25 Cliff street, New York,

HAS constantly on hand a large assortment of AGRICULTURAL and HORTICULTURAL IMPLEMENTS, FIELD and GARDEN SEEDS—Among which may be found:

Prouty & Mears' Premium Eagle Centre Draft PLOWS, which took the first premium at the last N. Y. State Fair.
Emery & Co.'s Improved Endless Chain HORSE POWER, which took the first premium at the last State Fair, in competition with Allen's, Wheeler's, and others of note.
Bogardus' Sweep Horse Powers, and others.
Hovey's Straw Cutter.—This cutter is considered superior to all other Cylindrical Cutters.
Corn and Cob Crushers—Beal's & Sinclair's Grain Mills, made of Burr Stone and Cast Iron—Water Rams—Chain Pumps—Wagons—Carts—Axles, Wheels, &c.
Winter Wheat—Mediterranean—Black Sea and White Flint Wheats.
Timothy Seed—Red Top—Kentucky Blue Grass—Rye Grass, Clover Seed, &c.
GUANO—Peruvian and Patagonian—Bone Dust—Plaster of Paris—Bone Black—Sugar House—Scum and Poudrette, and all other articles in the Agricultural line, which will be sold as low as can be purchased in any similar establishment in this country.

P. S. As this establishment employs no travelling *Solons*, planters and others may rely upon not having the charges of such an appendage to pay with their goods.

jy. 1-3t G. H. B.

Important to Farmers and Machine Makers.

THE subscriber respectfully informs the public that he has lately completed a TRIPLE REACTING INTERNAL GEARED HORSE POWER which outrivals any in use.—It is made entirely of Iron, both Frame and Gearing. The Journals are made of Cast-Steel—its weight is 600 lbs. On trial it has proved itself capable of performing from 50 to 100 per cent. more work than other Powers with the same labor of the team. It is warranted to hold 8 horses.

I have also completed a combined THRESHER AND CLEANER, which is capable of Threshing and Cleaning from 300 to 500 bushels of wheat per day, with from 6 to 8 Horses and an equal number of hands.—4 horses can thresh with it from 100 to 200 bushels per day of wheat, and 400 to 500 of oats. It is very convenient for those who follow Threshing, and for two or more farmers to own in company, it is more convenient to move than any machine in use. The Machine stands on the wagon while threshing—the Power is loaded on the same wagon in moving—two horses are sufficient to move it; it will save enough labor in threshing 2000 bushels to pay its extra cost. It will thresh in a field or by a stack as conveniently as in a barn. The cylinder and concave can readily be adjusted so as to thresh with equal facility both tough and dry grain.—it is free from the complication and liability to get out of order of other machines of the kind, and of less cost.

Machine makers supplied on the most reasonable terms. Powers made by wholesale by I. W. Groff, Lancaster, Pa.—Threshers, Machines, &c. made and for sale by Jeffrey Smedley, Columbia, Pa.

All orders directed to the subscriber at Lancaster, Pa., will be promptly attended to.

SAMUEL PELTON, Jr.
Also for sale by E. Whitman, Jr. & Co., Baltimore. jy.1-1y

Peruvian Government GUANO.
WHOLESALE & RETAIL.

HAVING made arrangements with the Government Agent for a limited but certain supply of the best Peruvian Guano for Autumn sales, I am now prepared to receive orders from my friends for whatever quantity they may desire.

To avoid delay and disappointment, those who intend to use this invaluable fertilizing agent had best send in their orders at once.

The price can be fixed now or at the time of delivery, as may be preferred. JOHN ROWLETT.
Petersburg, Va. June, 1, 1851. tf

GUANO—GUANO.

500 TONS PERUVIAN GUANO, direct importation, and *warranted equal in quality* to any in the market. The Guano is put up in good strong bags, and is in fine shipping order. For sale in lots to suit purchasers, at the lowest market rates, by

WM. ROBINSON, No. 4 Hollingsworth st.
near Pratt st. wharf, Baltimore, Md.

Also, PATAGONIA GUANO, BONE DUST, Building and Agricultural LIME, for sale on the best terms. je. 1-tf

AMERICAN FARMER.

BALTIMORE, SEPTEMBER 1, 1851.

PLACE OF HOLDING THE STATE AGRICULTURAL SOCIETY'S CATTLE SHOW.

After the main body of our paper was at press, we learned that the committee appointed to purchase a place for the holding of our Cattle Shows, had secured a most beautifully located lot, of 19 3-8 acres, situated at the head of North Charles street, in a straight line from the Washington Monument—We have only space at present to announce the gratifying fact, but will take occasion to speak more fully of its advantages in our next.

☞ In compliance with our written request, the "notes" of our friend's visit to Eastern Va. (noticed on page 105 of this No.) have been received, and our readers may expect an unusually interesting treat.

☞ "A Young Farmer" is received.

☞ The *Coad Wheat*, particularly described in our July No. it will be seen is now on sale by Messrs. Neale & Luckett, of this city.

☞ The Montgomery Co. Md. Fair is to be held 10th and 11th Sept.

To Correspondents.—Absence from home several times during the past month, may have caused a delay in giving prompt attention to the favors of some of our friends.

Animal compost.—Dr. D. Stewart, of this city, who stands at the head of his profession in this state, as an Analytical Chemist, has furnished Mr. J. Horner with an analysis of the compost made and sold by him (at 35 cts. per bushel—see advertisement)—The Dr. makes a comparison of the relative value between Mr. Horner's compost and Patagonian Guano, and as an evidence of his appreciation of the value of the former over the latter,(taking the cost into consideration) has ordered nearly 300 bushels for his own use.

AMERICAN PLOWS.—We see it stated in the Boston Journal, that a number of American Plows were exhibited on trial at the World's Fair, and that the palm of superiority was awarded to Prouty & Mears' Centre Draught Plough.

The Crops.—The unusual quantity of rain which has fallen during the last six weeks, has had a salutary effect on the corn crop, as well as the Tobacco, and a better yield will be had than could possibly have been anticipated a month ago; but still these crops cannot reach an average—In some of the Southern states, the accounts are very unfavorable for the corn.

The Coad Wheat.

THE SUBSCRIBERS have just received from Mr. E. J. Coad, of St. Mary's county, Md., a portion of his crop of this celebrated Wheat, which they offer in lots to suit purchasers, at the following rates, viz: for any quantity less than fifty bushels, $4 per bushel; for lots of fifty to one hundred bushels, $3.75 per bushel; and for one hundred bushels or more, $3.50 per bushel. The Wheat is put up in two bushel bags. It entirely escaped the rust last year, whilst almost all other varieties were affected by it, some of them a few feet from it. The character of this wheat is so well established that it is not deemed necessary to say more with regard to it, but those desiring further information are referred to the "American Farmer" of July, the editor of which visited the farm in person in June, for the purpose of examining it before it was harvested.

All orders promptly attended to, enclosing the cash or its acceptances, addressed to NEALE & LUCKETT.
Sep-1-2t Pratt street, near Light.

Foxwell Wheat.

AS I was anxious to ascertain all the facts I could in regard to the above wheat, I have visited Mr. Foxwell's farm, to see his field on which he grew his Wheat, and to examine the crop, and from a thorough examination I am convinced that the yield will be much the largest I have ever seen on such land. Below I insert Mr. Smith's statement of the 3¼ acres he seeded, which is equal to our expectation, and from the general opinion of the farmers in the county, I have every confidence in its superiority. From what I have seen and heard, I think more than half of the whole crop will be seeded in that county. Many of the farmers have engaged from 5 to 30 bushels, and I expect to seed 50 bushels to help to supply the demand next year.

Terms—$4 per bushel, including sack, &c.; where 50 bushels or more are taken in a lot, $3 per bushel, and 15 cts. for sack, and freight.

I have also received a lot of *COAD WHEAT*—price $4 per bushel, including sack. GUANO, LIME and ASHES furnished at lowest market price. All orders accompanied with the cash or draft, promptly attended to.

R. N. MILBURN, No. 55 Light st., Balto.

August 29th, 1851.

St. Mary's County, Md., Aug. 28, 1851.

In the fall of 1850, I applied to Mr. James L. Foxwell for 5 bushels of his large grain yellow Wheat, and offered him $6 per bushel, but he declined to sell any, as he intended to sow all he had on his own account, and as I was anxious to grow some to test its quality, I induced him to let me have the five bushels to seed on his own account, and I receive $1 per bushel for all I made. I seeded the 5 bushels on 3 1-4 acres of fair land, the average of my farm, and it yielded 132 bushels of neat wheat. It was seeded on the 22d of October.

sept. 1 G. H. SMITH.

African Guano.

80 TONS, perfectly dry, packed in barrels—for sale in lots to suit purchasers at much below the price of Patagonian, by THOMPSON & OUDESLUYS,
No. 57 South Gay st., Baltimore.

Dr. Stuart, U. S. Inspector of Drugs, says of this Guano that it contains as much Phosphates as the best quality of Peruvian, and more Ammonia than what is called good second quality Patagonian. sept. 1-1t*

☞Samples of this guano are left at the "Farmer" office.

AGRICULTURAL BOOKS.—All the standard works on Agricultural subjects can be found at
E. WHITMAN, JR. & Co's,
sept. 1 55 Light street, Balto.

Wheat Drills---Wheat Drills.

THE subscribers have now on hand a large stock of Pierson's, Pennock's and Moore's Patent Wheat Drills—all of which have been fully tested, and are recommended as the best in use. Farmers will do well to call and examine our stock before purchasing elsewhere.

E. WHITMAN, JR. & Co.
Agents for Patentees, No. 55 Light st., Balto.

NOTICE.—The Iron Cylinder or Feeder, used in Wheat Drills, is patented by Mr. Jacob Pierson, and Farmers are cautioned against purchasing Drills with said Cylinders or Feeders from other makers, as the owners of said patent are determined to put the law in force against all infringements, either in the manufacture, sale or use of them. sept. 1

BOOK BINDING.

WILLIAM C. LYCETT, No. 125 BALTIMORE-ST.,
Opposite the American Farmer office,

WILL execute all orders in the above business with promptness, in a neat and substantial manner, and in every variety of style, in full or half bound Tur. Morocco, Russia, Calf, Sheep or Muslin at the lowest possible rates, such as Bibles, Magazines, Music and old Books carefully mended or re-bound. Feb. 1-eoly

REVIEW OF THE TOBACCO & GRAIN MARKETS.

Reported for the American Farmer by J. W. & E. Reynolds.

The Tobacco market during the past month has presented no new feature, prices for Maryland being about as they were during the months of June and July. The inquiry has been uniform, and sales also at prices ranging from $3 to $10, viz: very common frosted $3½; good frosted $4; common dark $4 to 4½; and dark leafy $4¾ to 5; dark brown and red $5¼ to 5½; bright red and yellow $6 to 7; and fine $7½ to 10. Many planters have

directed their agents to hold on for higher prices, and consequently there is in agents' hands a considerable quantity. We *doubt* whether there will be any improvement this year in any descriptions, and fear that prices for common qualities Md. will still further decline.

Grain.—During the past month, Wheat (of which the yield is very great in Maryland and the various wheat growing States of the Union) declined from 95 and 90 to 84 and 75, and we now quote sales good red at 70 to 75c; white 76 to 82c; and extra, for family flour, 84c. Corn has also fluctuated in price; at the beginning and up to the 20th of Aug. it sold at 62 to 64c for white, and 60 to 61 for yellow, and since then at 52 to 55 and 56c, and at the last of same month at 58 to 60c. Rye 62 to 65c. Oats 28 and 30c.

Wool continues dull, and there is but little coming in—sales for good clean country washed, about 28, and for do unwashed 18c.—Flour, $3.87, heavy, —Clover seed retailing at $6¾ to 7, as in quality; Timothy $2¾ a 3 —Beef Cattle, $2¼ a 2¾ per 100 lbs. on the hoof, equal to $4.50 a 5.25 nett, averaging $2.44 gross, supply large—Hogs $6 a 6.50—Rice $3 12 a 3.37—Spirits Turpentine 38c; Tar $1½; Pitch $1.37—Whiskey, in bbls. 23, in hhds. 22c.—Hay, $10 a 11 for Prime.

Guano—Peruvian, less than 10 tons, per ton of 2000 lbs.	$46	
Do over 10, and less than 25, do.	45	
Do " 25, " " 50, do. of 2240 lbs., cash.	50	per ton
Do " 50, per ton of 100 tons, 4 mos.	50	"

SINCLAIR & CO.'S PATENT WHEAT DRILL,
WITH VALUABLE IMPROVEMENTS.

THE above Fig.* represents our Patent Wheat Drill, and the same (with late improvements) as that exhibited last November at the Talbot Co. Agr. Fair, and which contested successfully for the *First Premium* against several similar machines from Delaware, Pennsylvania and N. York. The present construction is equally simple and more durable, and possesses the advantage of improvements and additions which experiments of last year have suggested. The tines (3) being arranged *angular* and hung on the swing principle, prevents the machine from choking with grass, *corn roots*, &c., and allows them to rise or fall according to the grade of the land. By the lever (4) and chain to each tine, one, a portion, or all, may be thrown up instantly; also, by slides, (7) either or all the cylinders may be prevented from acting at pleasure, or the entire cylinder shaft thrown out of gear by operating on lever (8, 8) The receivers (9) are so arranged that the driver can observe the grain falling from each cylinder, which advantage, with the hoppers being equallly divided, insure a certain check against irregular seeding. The brace (2) is attached to the tine by a wooden pin—intended to break when the tine comes in contact with fixed roots, &c.; new pins are provided for replacing the same; also on top of same brace three holes are made in the swinging or main lever; (1) which allows the tine to be set less or more inclined, and intended to give more or less depth of furrow. The cylinders (5) are in two parts, and separated or closed by two pinch screws (6) attached to an iron rod, which allows the cups to be formed to any and uniform size, and to drop any desired quantity of wheat per acre. The ends and bottom of the hopper are of iron, accurately adjusted, which prevents derangement of the works, consequent to shrinkage, that wood is subject to. The machine may be worked by 2 or 3 horses—if for the former a pair of shafts will be necessary. Directions will be furnished with each machine relative to management. Price $90

je. 1 R. SINCLAIR, JR. & CO.

*See August No. of American Farmer.

Sinclair & Co.'s Threshing Machine and Separator.

The effort of manufacturing Thrashing Machinery, possessing the important requisite of combining strength, durability and simplicity, we believe is fully attained by the machinery we are now making for that purpose. The cylinders are made open, with six beaters, covered with heavy wrought plate iron, which prevents any possible wear to the surface of the beaters, and well secured by a strong wrought iron band at each end and in the centre. Cylinders made upon this plan act upon the principle of a Fan, thus preventing that vast collection of dust around the feeder, which must be the case in using the solid cylinder. Those wishing to purchase, by giving timely notice, will be furnished with our best patterns, and warranted.

The following set is generally preferred:

Lever Power, No. 2,	price $100
Thrasher, 25 inch,	50
Straw Seperator, 25 inch,	18
Driving Band,	10
	$178

Also, Lever Powers of *extra capacity*—price $135.

Wrought iron Rail-way or *Endless Chain* Powers, for one or two horses, *latest improved*—price $75 a 100.

20, 25 and 30 inch Thrashers—$40, 50 a 60.
do Straw Seperators—$15, 18 a 20.

☞ Oil can, wrenches, and Directions for management furnished gratis.

Horse Hay, or Gleaning RAKES—a most excellent Machine; every farmer should have at least one—price $8 to 11.

Loafer Hand Rakes, for manual power—capacity equal to a dozen common hand Rakes —$2.

In store—a general assortment of CHURNS, OX YOKES, &c. Also, HARVEST TOOLS of every description.

R. SINCLAIR, JR. & Co.

jy. 1 58, 60 and 62 Light street.

Whitman's Premium Wrought Iron Rail-way Horse Power and Thresher.

At the great Maryland State Fairs held at Baltimore, 1849 and 1850, there was the largest exhibition of HORSE POWERS and Threshing Machines ever exhibited in this country, and all thoroughly examined and tested by a large and competent committee, who awarded the First Premium for two years to the above Power, as the BEST on the ground. More than five thousand of these Powers are now in use by many of the best farmers in the country, and they consider them to be double in power to any Sweep Powers, more durable, and much easier for the horses. Price $100. Only for sale by

je. 1 E. WHITMAN, JR. & CO., Baltimore, Md.

PEIRSON'S PATENT SEED DRILL,

For planting Wheat, Rye, Indian Corn, Barley, Rice, Oats, Peas, Beans, Turnips, Ruta Bagas, &c.

This DRILL is adaptad to the various kinds of land, and is not liable to be injured by striking stones or roots. It will sow point rows, and fields of irregular shape, to advantage. It can be constructed to operate on stony land, and is so simple in construction that a boy of twelve years of age can manage it. (See references in last Farmer.)

This machine will save 25 per cent. in seed, and 15 per cent. in labor, and cause the yield to be 15 per cent. more than by the usual modes. For sale by

sept. 1 E. WHITMAN, JR. & CO.

PENNOCK'S PATENT
SEED & GRAIN DRILL.

PUBLIC attention is respectfully invited to some of the improvements recently made in this machine; also to its many important advantages over other seed planters.

1st. The Seeding Cylinders are *now* made to plant 1¼ *and* 1½ *bus.* of wheat, and 2 *bus.* of oats to the acre, without *any* change; and these quantities may be *varied* as desired.

2d. The *peculiar* form of the depositing-tubes cause them to run *easier*, and to *free* themselves from filth *much better* than any others.

These depositing-tubes are supplied with *reversable steel points, either end of which can be extended several times*, as they become worn. Each set of these points is a *saving* to the farmer of from 12 *to* 15 *Dollars* over those ordinarily used, while the cost of renewal is about the same.

3d. *For convenience* in handling, storing, and for the *greater safety* of the machine while moving from place to place, the depositing tubes can instantly be *disengaged* from the drag-bars and from the body of the machine, without the use of any kind of tools.

This arrangement adds much to the permanency of the machine.

4th. The entire seeding apparatus, or any desirable part thereof, is thrown into or out of operation by one simple movement. This arrangement enables the operator to do his work much more easily, perfectly and expeditiously than is possible with any other Seed Drill in use, particularly in seeding point and other irregular shaped lands. All other seed planters require the attention of the operator upon at least two distinct movements at the same time.

5th. Our depositing tubes are hung upon side-bearings, to prevent a wabbling or lateral movement of their points, and are arranged to turn forward when the horses set back with them in the ground, thus avoiding the possibility of either breaking or clogging them with earth.

They also not only possess all the advantages of being open behind, to allow the operator to see that the grain passes properly into the earth, but those hinder openings are furnished, upon each side, with rearward flanges or wings, as a very necessary protection against the dirt closing in upon the grain before it reaches the bottom of the drill furrow.

We carefully avoid the old method of zig-zagging or staggering the depositing tubes, unless they are especially ordered so.

First—Because each alternate row of grain, thus seeded, is buried much deeper than the other rows, (and very often too deep.)

Secondly—Because it deprives one-half of the crop of the great advantages of side ridges, which are made to protect it from winter lifting, droughts, &c. by the frosts and rains filling them in upon the roots of the young plants.

The machine *is warranted* not to injure or waste the grain in seeding; to distribute it with equal certainty upon rough and hilly, as upon smooth and level land; to be made of good material and in a workmanlike manner, and to give *better* satisfaction, under all circumstances, (as a Seed and Grain Planter) than any other machine of the kind.

These machines, with a great variety of other Agricultural Implements, always on hand,—and prompt attention given to orders for Iron Castings of all kinds; also, for Steam Engines, Mill Work, and Screw Cutting, by

S. & M. PENNOCK, Kennett Square, Pa.

P. S.—E. WHITMAN, JR. & Co., Baltimore Agents.

Eddy's one wheel wrought iron Horse Power.

THE most simple, durable and easiest draught Power in the world, for 3, 4, 5, 6 or 7 horses. It being made of wrought iron, there is no danger of its being broken or worn out by use. It can be taken down, or put up in ten minutes time, and easily transported in a one horse cart. It may be worked in the open field, or under cover, as the farmer may desire, and is one of the greatest improvements of the day.

We have enlarged and very much improved it since last season, and can recommend it to the farmers as a superior article, and one that we have not the least doubt they will highly approve.

For sale by E. WHITMAN, Jr. & Co. Junet

GATCHEL'S Patent WATER RAMS.

FOR SALE at E. Whitman, Jr. & Co's Agricultural Establishment, No. 55 Light street. J. Hewes & Co., corner Pratt and Frederick sts., Baltimore, Md. These machines are cheap and durable; will elevate a constant stream of pure water any height or distance required, *without labor*. Any amount of references can be given as to their reputation, simplicity, durability, &c.

The patentee is prepared to furnish all sizes of machines, with Lead, Cast and Wrought Iron, Glass or Cement Pipes, and to erect the same with neatness and despatch, in any part of the United States. All work warranted, or no charge. Address, describing location, &c.

J. L. GATCHEL, Elkton, Md.

☞ I refer, by permission, to Samuel Harris & Sons, Exchange Brokers, or Robt. A. Taylor, Baltimore, Md. je.1-4t*

JOHN KETTLEWELL'S

(Successor to Kettlewell & Davison)

AGRICULTURAL DEPOT,

For the sale of every description Chemical Compound and Simple Manures for the Improvement of Crop and Land—Pure Biphosphates—Renovator, a Fertilizing Salts—Agricultural Potash—Potash and Plaster—Ground Plaster—Liquid Ammonia—Oil of Vitriol—with every kind of Chemical Residium.

Factory, Federal Hill. Office, corner of Lombard and Honover streets, Baltimore, at the wholesale Drug Store of *Messrs. Ober & M'Conkey.*

The undersigned, (successor to Kettlewell & Davison) again presents his claims to the consideration of the whole agricultural community. In doing so, his first duty and pleasure is to express the profound gratitude which he feels for the entirely successful and generous support which he has received from the Planters and Agriculturists. From the first season of his commencement, up to the last, his sales have constantly increased, and during the past spring at a greater ratio than at any former period. Thus generously supported he has with three years experience, gone on to extend his enterprise, until he now feels prepared to extend an invitation to every Farmer who can reach him, to visit his Factory—critically examine not only his extensive works and machinery, *but each article separately, which combines his various compounds.*

They will find an outlay, worthy of such an enterprise, and doubtless be surprised—as all have been—at the extent of the undertaking, and the stern faith that justified such an expenditure in an undeveloped and almost untried experiment. His anticipations have been more than realized. His appeal was to the *judgement, experience and interest of the Farmer*, and the verdict has been such as to satisfy his sanguine expectations—Indeed, the intelligence and enterprise which of late years has so honorably inspired the Farming public, has saved him from a doubt and procrastination which has attended the early development of most manures—Lime, Bone Dust, Ashes, Guano, Plaster—indeed, had all their first, and protracted struggles, before they became standard manures—and scarcely one, but was more criticised than what the undersigned now sells.

One step farther the farmer must yet go,—and that is, to to remember that his *whole profit lies not alone in a single crop.* In Pennsylvania, where as much money has been made as in any other state, the Farmer there, calls that the best manure which gives the most lasting benefit to his soil—He looks to the permanent, and increased *value of his land, as the foundation of his wealth as an agriculturist.*

In this connection, the undersigned cannot do better than quote from his second advertisement.

In durability, I know that my chemical compound is only second to lime—in promptness dividing the palm with Guano. On some soils it has been as active as guano, on others, more or less so; but on any, by far the most lasting. In promptness it has a corresponding advantage over lime. The wisdom as well as the interest of the farmer, should make a permanent improvement of his land a matter of primary consideration. And as I entirely concur in the opinion, which all do not, that the natural soils has a great influence upon the action of manures, I volunteer to every farmer this advice: Pronounce no manure a humbug sustained by such testimony as I present in support of my salts, but never buy more than a very small quantity until you try its adaptation to your particular soil. Follow this rule, and while no one will be injured, neither will you do injustice, either to your neighbor, or to the manufacturer. For a manure which for the first season may have done but little apparent service to you, may be of no ordinary benefit to your neighbor, of which by your discontent and example, he may remain in ignorance.

The farmer in calculating the value of manure, does it upon a relative principle. In the purchase of lime, how much, and how long it will benefit his land? In the purchase of Guano, how much will he make the first crop? Those who buy my salts should unite both these calculations, and however much he may be gratified by its prompt and immediate action, I will risk my reputation, that he will be far more so, with its durability—It is prompt and it is lasting! hence in applying two barrels of the Renovator to the acre, instead of one, the agriculturist is only paying for a manure the benefit of which he will acknowledge from his first to his sixth crop!—I have been asked why has not something like my salts been introduced years ago? I reply, that years ago our lands were not worn down as they are now; and the absolute necessity for investigation and experiment not so imperiously demanded.—Independent of which, must the agricultural interest *alone*, and pressed upon every side, stand still? Is every branch of industry to progress—to develope,—and this immense interest—the foundation of all others, to have limits?—Why, I say, to all who ask this question, that every one who has been using Barn yard manure all his life, has been using many of the elements of my Chemical Salts; *but in a far less powerful and concentrated form.* But others have said, and will read the certificates annexed and again say, the quantity of one or two barrels to the acre, is too small: such results are utterly impossible! I ask him to look at the Mammoth Steam Boat with its thousand tons of Cargo, propelled by a few hogsheads of water! Those natural laws which guide the one, govern the other. They are alike unalterable and immutable—Science often amidst shouts of scorn promises results, and experience demonstrates their truth. In conclusion I have no cause of complaint; on the contrary, my success and patronage does infinite honor to the great and intelligent interest from which I asked it—The farmer has made my manure a standard one, and below that standard it will never go. I have every season sold all I manufactured, and each succeeding season the demand has rapidly increased.

It will be seen that most successful experiments have been made by using 100 lbs. of the *best Peruvian* Guano, and 200 lbs. of our salts—(the cost of both being less than 200 lbs. of guano.)

When this is done, it should be strictly borne in mind, that the *guano should be ploughed in*, and the salts as slightly harrowed in as possible. The one rises through the earth—the other sinks—The ammonia in the guano is free or volatile—in the salts fixed as a sulphate. For the information of those who are not acquainted with the elements of which my Renovator is composed, I make the following extract from my first publication:

"The soil may contain a supply of all the materials referred to; but frequent cropping may have used up all those in a free state. Now, under these circumstances, we may renovate the lan by supply-

ing all these materials which are required for the crop without drawing on the soil, but actually *resting and keeping it covered*, while undergoing the process of disintegration; all of which, *experience* says is important.

A rotation of crops is not the *best* mode of accomplishing this object; for although all crops do not remove from the soil the same proportion of its elements, yet they are removed, and the land is impoverished. On the other hand, we are taught by experience, that land exposed to the sun's rays is not improved by rest as when "covered." Guano will, in many cases, supply the deficiency of two of the elements necessary for the growth of a crop; but is found frequently to fail, because *those two* elements are not wanted by this particular soil; and the experiment is a hazardous one, for the failure is not only a loss of time and labor, but the manure is an expensive one, and the crop is twice lost. Stable manure, plentifully applied, will generally accomplish the object; but it is not always to be had in sufficient quantity; and many soils are injured by the admixture of so much vegetable matter, while the salts contained by the stable manure would have been beneficial *alone*. But, under the most favorable circumstances, I am prepared to prove that it is cheaper to apply one cart load of Salts, containing the extract of one thousand cart loads of stable manure, than haul out the latter, although it cost nothing. I call the attention of the public to the fact that I do not merely stimulate the growth of *one* crop, by the application of an agent like guano or plaster; neither do I profess to have discovered some new combination or panacea for curing all the defects of drainage and bad cultivation; but I challenge the severest scrutiny to detect the absence or deficiency of any salts that is required for the usual crops, in the proportion indicated by the best authority; in other words, I propose to put on the land exactly what would be taken off by the next crop. Take, for instance, one of the elements of our Renovator, phosphate of lime; eight pounds are removed from the soil in every ton of hay, wheat or straw, and one pound by every thousand pounds of wheat or oats. Twenty pounds will supply an acre with this material for three crops of wheat, clover, &c., &c.; and one barrel of my Renovator will, consequently, provide more of this material than any six crops can remove from an acre Moreover, I will engage to forfeit 200 barrels of my Salts to any individual who will produce a barrel of the Renovator that contains less than the average in the hundeed pounds of guano of phosphates of lime.

A bushel of green dung weighs 87½ pounds; of this 83½ per cent is Water, and only 2½ is soluble. One hundred pounds of dung contains *nearly* ¼ of a pound of Phosphate of Lime, so that one barrel of my Renovator is equal to about one hundred and fifty Bushels of pure dung, with reference to Phosphates *alone*.

But if we compare the fixed soluble Salts, one barrel of the Renovator represents more than four hundred bushels of dung; for one hundred pounds of dung do not contain ½ a pound of Salts. If it were possible to burn up the cart load of dung and collect the 8 lbs. of ashes, without losing the ammonia that would be volatalized, it is manifest that much labor would be saved in its application.

Now this I propose to accomplish in the use of the Renovator. All experience shows that the combustion or rotting of the dung, when spread upon the field does not supply even this proportion of salts, for the straw or hay of the dung is frequently preserved for years without decomposition retaining the phosphates, &c., while the ammonia is evaporated and lost to the crop; whereas the ammonia of the Renovator is supplied as a sulphate or fixed salts of ammonia more than 24 lbs. to the barrel. Apart from all this, the seeds of noxious weeds are spread broadcast upon the growing crops with every bushel of dung. It is estimated by the analysis of the ashes of the soap boiler that every barrel of my Renovator contains as much Potash as six bushels of their ashes; and the salts of lime in each barrel contain more pure lime than a bushel of the best quick lime from the Schuylkill. The Salts of Magnesia and Soda in each barrel, will amount to fifty pounds, and the Sulphate will exceed seventy-five pounds in each barrel. Moreover I pledge myself always to supply the proportion above in every barrel, and will make the forfeit referred to above, to any one who can produce a barrel deficient in any of the articles as represented above."

GROUND PLASTER.

The undersigned ask the special attention of the Agriculturists to the very able Report of the State Chemist for the past year, that they may be thoroughly informed upon the variable qualities of this important article. It is well known that plaster is alone valuable for the quantity of sulphate of lime which it contains; and this valuable document shows that from a uumber of analyses made by him it varied from 40.100 to 85.100. Now as there is one established price, the farmer who buys the inferior pays more than double the price of the one who gets a good article, and never knows to the contrary. I have only to say that mine shall be similar to what I have already sold—that my name will be stamped upon every barrel, and that the Agriculturist will get what he pays for. Those who order through Agencies should indicate that they want mine, provided such is the case.

BI PHOSPHATES.

I keep constantly on hand this valuable Manure. Bones, with a proper portion of the Sulphate of Ammonia, dissolved in Sulphuric Acid. The Chemists of this country and Europe have been pressing this mode of using Bone Dust upon the attention of farmers, with great zeal and ability of recent years. Every experiment has confirmed the truthfulness of their theory; and I hazard but little in saying that in a very brief time it will be used in no other way. It is prepared so as to be sown similar to the Salts, at the rate of one or two barrels to the acre. The price of this article is $4 per bbl. Let the Farmer who doubts, try it at less expense than the old mode of using Bone-Dust.

TOBACCO GENERATOR.

This is a Chemical compound made expressly for the growth of the Tobacco Plant. I will call more special attention to it at the proper season.

CHEMICAL RESIDIUMS.

I have constantly on hand Chemical Residiums of every deseription. Full information of which can be had by application to me.

COMBINATION OF GROUND PLASTER AND POTASH.

This is a preparation made for soil deficient in Potash, of which deficiency there is, unfortunately, too many instances in much of our Maryland land. For this compound I am indebted to the suggestion of an accomplished Agriculturist of Prince Geor-

ge's county, who may at some future day present the result of his experiment. The price of this is $2.50 per barrel.

DIRECTIONS.

The mode of using the Renovator is simple, inexpensive, and requiring but little labor. The Farmer must bear in mind, that in the preparation of his soil he shares an equal respensibility in testing the merits of any manure. Land negligently or badly cultivated gives no manure a fair chance. How to put land in order he ought to know better than we can teach him, and if he don't know, should learn as speedily as possible. The land, then, in order,—if one barrel to the acre is used,—and this quantity depends upon the quality of the land—it should, for grain, be sown broad-cast, and slightly harrowed in.

If two barrels are used, one as stated above, and the other as a top-dressing upon the wheat or rye, early in the spring at the commencement of the first thaw. Upon grass it should be sown broadcast upon the timothy or clover. On corn, either broadcast or in the hill. Where two barrels are used, one each way.

☞ PRICE OF THE RENOVATOR $20 PER TON, OR $3 PER BARREL.

In my former advertisement I presented the strongest, most conclusive, and elaborate certificates from the following gentlemen, who will be recognized as among the most practical and accomplished agriculturists and planters of the country. Those which now follow, are entitled to the same high respect, and these will be followed in the October number of the American Farmer with others of equal distinction. The undersigned also gives most particular attention to Ground Plaster, an article universally used, and while at the same price, no article varies more in value or quality. It is time that Farmers should begin to investigate their interests in the purchase of this article. If they did so there would be less diversity of opinion in reference to its virtues.

CERTIFICATES HERETOFORE PUBLISHED.

From the Revd. J. S. S., of Cumberland Co., Va.
Dr. Wm. Mosher, Baltimore Co., Md.
Seth Warfield, Esq., Howard District, Md.
Dr. W. Kirkwood, Prince George's County, Md.
J. E. Brooks, Esq., Montgomery County, Md.
John M. Donn, Esq., Montgomery County, Md.
Isaac C. Anderson, Esq., Howard County, Md.
R. H. Merriweather, Esq., Baltimore County,
W. W. W. Bowie, Esq, P. George's Co., Md.
A. McCourt, Esq., Baltimore city,
Dr. R. Dorsey, Baltimore County,
Horace Capron, Esq. Prince George's County,
John L. Stansbury, Baltimore County,
Carville S. Stansbury, Baltimore County,
Genl. H. S. Stites, Cecil County, Md.
Capt. Thomas Lucas, Baltimore County,
Dr. A. L. Maclay, Howard District,
George E. Yeatman, Esq., Fauquier Co., Va.
H. E. Bateman, Esq., Talbot County, Md.
Joseph Curley, Esq.,
F. P. Blair, Esq., Montgomery County, Md.
Peter Gorman, Esq.,
John H. Kauffman, Baltimore County.

ASHLAND, near Richmond, 26th August, 1851.

JOHN KETTLEWELL, Esq., Baltimore— *Dear Sir:*—Your esteemed letter of the 12th inst. has been forwarded to me from my P. O. (Tappahannock) which accounts for the delay in my reply.

It affords me great pleasure to say, that your "Renovator" has *more* than equalled my expectations on the corn and wheat crops. Indeed, as at present advised, I prefer it to Guano. The *land* is evidently greatly benefitted, as showed by the growth which follows the wheat. The grain of the wheat is equal, if not superior to any I have ever seen, and not the vestige of blue thistle, garlic or cockle, has made its appearance; this I cannot account for, as the same land has heretofore been much taken with the "thistle." I tried the "Renovator" on clover, and if any thing could prove more satisfactory, I have yet to learn what it is. I am but a small farmer, and have a pretty "*hard case*" in a piece of worn-out land to deal with, yet I feel and take great interest in every thing connected with the improvement of the soil—it is the substratum of our prosperity, and it is gratifying to know that Eastern Virginia is, *at last*, aroused, and that soon it will be, what nature intended it—the garden spot of the State.

Respectfully yours, JOHN A. PARKER.

MOUNTNEMO, Albemarle Co. Va. 19th Aug. 1851.

JOHN KETTLEWELL, Esq.—*Dear Sir:*—In reply to your communication of the 8th inst., asking for my experience and results, in the use of your Chemical Salts, which I purchased last spring, I answer, that the season has been too dry in this vicinity for a full and complete development of the fertilizing qualities of any kind of manure, for we had but little rain between the 23d of May and the 30th of July.

I used six barrels of your Renovator on corn in the hill, part of which was applied at the rate of one, and the balance two barrels to the acre—the fertilizing effects of which are manifest, notwithstanding the drought of more than 2 months, for the corn came up better, grew faster, and has held a better color than several rows left through the middle without any Renovator—but more so where it was applied at the rate of two barrels to the acre.

I also used two barrels of Biphosphates on 2 acres, sown broadcast and harrowed in before planting the corn. This corn did not make so vigorous a start, but it is improving more, since the rains have commenced, than where the Salts were used. On 3-4 of an acre I used one barrel of your Generator on corn in the hill. This corn made a more vigorous start than where either the Renovator or the Biphosphates were used, but it suffered more from drought.

I have also used separately, on seven acres for tobacco, six barrels of your Generator, one of Renovator and one of Biphosphates—sown broadcast and harrowed in before setting the plants. The tobabco is now better on the 7 acres where I used the several Salts, than on an adjoining piece of better land, which was planted first, but on which neither Salts nor other manure was used. My land is a mixture of red clay and sand, resting on a bed of cohesive red clay, from 8 to 12 inches beneath the surface.

Yours, very respectfully, JOS. W. TWYMAN.

P. S.—You will please write me immediately, if you can furnish me, about the first of next month, with your best Ground Plaster, and what will be the price; and let me know if you will have a supply of Renovator, and oblige

Yours, &c. J. W. TWYMAN.

HAGERSTOWN, Aug. 14, 1851.

Dear Sir:—Yours of the 9th inst. asking me for the result of my experiment with your Chemical Salts, came to hand a few days since. As I tried it only on corn, I cannot yet tell what the actual result will be. I put it upon different parts of the field, a small handful in each hill, before the corn was dropped. In the first 6 or 8 weeks, its effect was most marked; the corn was much taller and stronger in every way than that which had no Salts on, and of a much darker and greener color. The difference in the size of the stalk is not so perceptible now as it was at first, tho' wherever the Salts was put, the corn, without an exception, is *good* and *heavily eared*. I examined it to-day, and am decidedly of opinion that it is much better eared than that which was not "salted." I am much pleased with it, and would like to use it more extensively, but the cost of bringing it here is a very serious drawbock. Yours, with respect,

Jno. Kettlewell, Esq. GEO. F. HEYSER.

ANNAPOLIS, Aug. 13, 1851.

MR. KETTLEWELL—*Dear Sir:*—In reply to your letter of the 8th inst. I have to say that, although I have had but a three month's acquaintance with your Chemical Salts manure, I am delighted with

it. I used it upon a field which, for a particular reason, I have cultivated in corn five years successively, and during the drought of the season, this corn neither twisted nor lost its dark green color, but continued to flourish, and now is a surprising crop, for what might have been expected of the land. I used one bbl. to the acre, and regard the money as well invested. Allow me to say, my soil, which is light, was analyzed by the State Agricultural Chemist, and your Biphosphates recommended by him. Yours, very respectfully,

JOHN WALTON.

The following is a quotation from a letter of one of the most successful and intelligent agriculturists in Virginia. It is quoted to show the lasting benefit the Salts affords to land, independent of crop:

"The improvement to the land is also decidedly greater from the Renovator. This is apparent to the eye at this time—and in the field manured with the Renovator the fall before, at the rate of one barrel to the acre, the improvement is still greater than in the field which had about 180 to 200 lbs. Guano to the acre. There is no doubt in my mind of the superiority of the Renovator for the substantial and permanent improvement of the soil.

The Renovator has given me more satisfaction still on the corn crop and on meadow grasses, especially timothy."

NEWTOWN, Worcester Co. Aug. 15, 1851.

Mr. J. KETTLEWELL—*Sir:*—I have not time to give you a statement of my experiments; suffice it to say, I will want 20 bbls. this fall, if I can pay you for them, so that you and the public can draw your own inference. Yours respectfully,

E. B.

PAMWILLALICK, Alexandria Co. Va., August 13. 1851.

Dear Sir:—Your favor, post marked 10th instant, is received. I regret that I cannot answer your enquiries as to the effects of your "Fertilizing Salts" used by me, with the definite precision you desire. I commenced its use last fall, predisposed in its favor. On 6 acres of timothy meadow at Alexandria, I top-dressed one bbl. per acre—the crop was about one-fourth short of that of last year, but about the same quantity of timothy meadow here, top dressed at the same rate, yielded much more crop than it did last year. Circumstanced as I am, it is impossible for me to ascertain exact comparative results, and I do not experiment with a view to it. I used your Fertilizer also upon wheat, not alone, however, except upon 2 or 3 acres, from which I had cut scrubby pine, (poor enough) that I sowed without other aid than your Fertilizer—the product of it is put away to itself; it promised well, but is not yet thrashed. I am, however, satisfied, and as evidence, request you to send me —— bbls. by the boat, on Saturday, to Alexandria.

As several of my neighbors have also used your Fertilizer, I will make known to them your wish to be advised of the results, whether favorable or otherwise. Very respectfully yours,

John Kettlewell, Esq., Balt. WM. D. NUTT.

Quotation from Dr. W. J. Sudler, of Queen Anne's county:

"*Your Renovator has paid in my wheat and corn crops for all outlay. The wheat, from the application of 500 lbs. of the Renovator, was equally as good as where 200 to 250 lbs. of Patagonian Guano was applied.* I am so much pleased with your chemical preparation, that you may send me —— tons this fall for my wheat." I am, &c. W. J. SUDLER.

Mr. Herbert should have used the Salts in the fall, when he put his wheat in the ground. A top-dressing late in the spring, on wheat, particularly a dry season, does not give the soil sufficient time to dissolve. This was the mistake.

WALNUT GRANGE, Aug. 18, 1851.

Dear Sir:—I have received your favor, in which you ask me for my opinion of your Renovator, and now I beg leave to state the same. I used of it 35 bbls., 25 as a top-dressing on wheat, and 10 on corn. So far as I can tell now (for I have not yet got out my wheat) it did not pay on the wheat, though it did improve it some, and I have no doubt it would have been very efficacious if it had been put on in the winter. On the corn, I applied it in the hill, and must say it acted beyond anything I have ever seen in the way of manure. I put as much as a man could hold in his hand in each hill; it is now the best corn I have, though planted on the poorest land. If I can get it again, I shall always use it on corn, in preference to any other manure. I shall possibly try it again on wheat this fall, but I think Guano better for *Wheat*. Yours respectfully,

EDW'D. HERBERT.

Capt. Thomas Lucas, than whom a more careful, systematic and accomplished Farmer cannot be found in the country, writes as follows—after ordering a full supply for his wheat crop, and saying personally, the Salts had been equally as successful upon his other crops:

"I top-dressed several poor knolls of limestone land upon timothy and clover, and the successful results of your Salts certainly exceeds anything I have ever seen."

FAIRFAX COUNTY, Va., Aug. 15, 1851.

Dear Sir:—I had the pleasure to receive your note of the 9th instant, respecting the effect upon "crop and land" of the Biphosphate or Chemical Salts, which I procured from you in April last. I applied the 6 barrels of Biphosphate on 8 rows of Corn, 460 hills in a row, 3½ feet apart, at the time of planting. On one side, I applied Ashes and Plaster in the hill; on the other, Guano, covering the latter lightly with earth before dropping the corn. A small handful of Biphosphate, and about the same quantity of Ashes and Plaster, was used in each hill: not more than one-third as much Guano.

The residue of the field received a liberal supply of barn-yard manure, and of Guano sown broadcast and plowed in.

For a month or two, after the corn came up, the rows upon which the Biphosphate had been used, the entire length of the field, were strikingly superior, in height and thriftiness, to their competitors; as the latter were also superior to two adjacent rows, upon which no fertilizer had been used. At present, however, the difference is not so apparent.

Two persons who accompanied me for the purpose of making the best comparison in our power, agree with me in thinking that, although there was little difference in height, the Biphosphate corn was better eared (that is, had more ears and larger to each stalk,) than the rows upon which the ashes and plaster, and the Guano had been applied.—There is, however, so great a similarity in appearance, that no reliable judgment can be formed until the corn shall be gathered and measured.

It is proper to mention that the season with us has been extremely unfavorable to similar experi-

ments on the corn crop. At this critical time, after an unprecedented drought, the clover field, adjoining my corn, is almost impenetrable to the plough; so that after ploughing a few acres, for wheat, with a three-horse plough, immediately after a heavy fall of rain the 19th of July, and again attempting it with four large oxen, I have been compelled to desist.

Should I be at home when my corn shall be gathered, I will with pleasure communicate the result of my trial, so far as circumstances will admit.

Very respectfully, yr ob't serv't,

John Kettlewell, Esq. L. H. MACKER.

"CLOVER HILL," Carroll Co. Md.,
August 23, 1851.

JOHN KETTLEWELL, Esq.—*Dear Sir*:—I have used a large amount of your "Renovator," and have withheld any opinion I might have formed, until I had fully tested its value as a fertilizer. That time has now arrived, and I do so the more cheerfully, because the conclusions are based upon *facts*, from which there is no appeal.

In the fall of 1848, I ploughed a field which had been worn out by a constant succession of summer crops. I applied half a barrel, one barrel, and two barrels of the Salts, per acre, to three several portions of the same field. A small portion was manured with five large loads (4 horse) per acre, for which I paid $1 25 per load, independent of hauling; the remainder I applied 300 lbs. Guano per acre. The field was then sown in wheat and put in with the cultivator. The guanoed and manured portions suffered very much from the fly; where the Salts were used, none could be found, and the wheat 3 lb. heavier to the bushel.

The difference was very slight where one and two barrels had been used—the half barrel was the worst, except part of one land which did not receive any manure. The product in dozens was 496. The field was set in clover and pastured in 1850. In August, I again ploughed this field and sowed wheat as before, but did not apply any fertilizer, not even plaster. The guanoed and manured portions were not so good as the first crop, but the Salts much better, the product in dozens being 620, and the grain much larger than the first crop—the field is now well set in clover. This is one evidence of its durability.

Again—In the summer of 1849 the bud worm attacked one of my corn fields and destroyed the first planting over the entire field. I replanted, and they commenced their ravages a second time; I applied the Salts to each hill, at the rate of one barrel to the acre, except 24 rows, on which plaster was used—about half of the latter was entirely destroyed; of the other, where the Salts were used, all that remained at the time of using them, continued to grow vigorously. The season being far advanced, and very dry, the product was small, and I could not discover any benefit from the Salts, except the protection it afforded against the worm.

In August of the same year I sowed the field in rye and passed the shovel plough and cultivator between the corn rows. During the winter and spring, the rye appeared from a distance to have been planted in hills, and at harvest the straw was at least two feet taller around each corn hill, and the product of the head in proportion of 3 to 1.

Clover seed was sown in the rye in the spring of 1850, and this summer the clover is in bunches, similar to the rye of last year. I would here remark that a portion of the corn-field had been limed the fall previous to planting in corn, the Salts acting equally well on both.

I have used about 400 barrels of the Renovator, and only two of my experiments that have not proved entirely satisfactory—one of which I will mention, and leave it to the more scientific to explain, if they can do so on any other principle than that the best stable manure sometimes fails to meet our expectations. A lot of 8 acres was sown in oats and clover in 1848, with 200 lbs. Guano per acre—yield 200 bushels. In '49, ploughed in the clover and limed—yield 50 bushels per acre, sown in wheat, timothy and clover; in January following, sowed 1 barrel Salts per acre—yield 224 bushels, or 28 bushels per acre. In '51, contrary to expectation, the clover is almost a total failure, and the timothy very light.

We have had no difficulty in protecting our garden vegetables and tender plants from the ravages of insects, by a slight sprinkle of the "Renovator."

From the many experiments I have made, I am forced to the conclusion,

1st. That it is a valuable fertilizer.

2d. In durability, it is second only to lime.

3d. Its protection to young plants alone would often compensate for the outlay.

4th. It is the cheapest *fertilizer* the farmer can buy.

5th. It should always be applied as a top-dressing, after which, when practicable, the ground should be harrowed.

Hoping you may continue to receive the liberal encouragement your enterprise deserves, I remain,

Very respectfully your obt serv't,

E. GOVER COX.

To publish all the Certificates in my possession, would make this advertisement too voluminous for one edition of the American Farmer. I shall, therefore, continue them in the October number, and monthly thereafter.

sept. 1-1t JOHN KETTLEWELL.

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